

SPRING/SUMMER 1994

\$4.00

\$5.00 (CANADA)

HARSH

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MISTRESS

SCIENCE · FICTION · ADVENTURES

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EDITORIAL NOTES

by
Warren Lapine

When Kevin, Tim, and I announced that we were launching Harsh Mistress, we were told that we didn't have a prayer; that there was no way we could succeed without major financial backing in today's marketplace. Every bit of conventional wisdom said that we couldn't succeed; and yet, armed only with the belief that if we put together a magazine worth reading people would read it, we proceeded.

In retrospect, I must admit that the obstacles that we faced were formidable, and had we truly understood the task ahead of us, we might not have embarked on our journey. Naivete was perhaps our strongest asset. We simply didn't know that what we were going to do was impossible until after we had done it.

We printed our first issue without so much as a single distributor on board. We had no way to get Harsh Mistress into stores and no money for an ad campaign. This should have been the end for us, but it wasn't.

Since we didn't realize that we couldn't just walk up to major authors at a convention and ask them if they would be interested in writing for us, we did just that; and they said yes. We didn't realize that you couldn't approach national distributors without a track record and get them to take you seriously. So, of course, that is exactly what we did, and it worked.

Harsh Mistress found its way into stores across America and people bought it. Our circulation has tripled and no one is telling us that we won't succeed anymore. Because of our success we have been able to change a number of things about the magazine. The first thing we changed was the price. As a magazine gets bigger it becomes less expensive to print. We've passed along our savings to you in the form of a lower cover price. The next thing we did was expand to full size with perfect binding, so that we could bring you even more great stories in every issue.

We are no longer naive enough to believe that we were right about everything. In fact, we were probably wrong in naming the magazine Harsh Mistress. Many readers have gotten the wrong idea about us and were put off by our name. Obviously, we don't want to put off any potential readers, so we have decided to change our name.

We believe that you, the readers, are our partners in this venture and in keeping with that, we have decided to let you choose our new name. Simply send us a letter telling us what you would like the magazine to be named. The person who suggests the name that we use will receive a lifetime subscription. In addition to this, ten runner-ups will receive a four issue subscription.

Rest assured that no matter what our name is, we will continue to bring you great adventure stories from established writers, and we will endeavor to find great new writers for your enjoyment.

I'm sure that those of you who are along for a second time have already fastened your seat belts, and for those of you who are joining us for the first time, buckle up, it's going to be a hell of a ride.

HARSH MISTRESS

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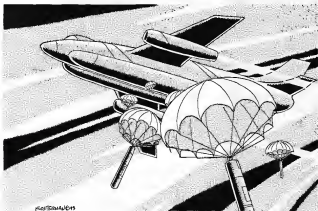
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Sortie

by
Hal Clement

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His Aitoff screen was offering one of its occasional, brief, random views of Sergeant Gene Belview's real surroundings, cutting him off for half a second from those of Oceanus deep in Titan's atmosphere, when the pipe stall occurred.

It would, he reflected at one level of his mind. He didn't believe in an unqualified Murphy's Law, which was strictly for civilians, but a scientist of any rank understood Murphy's Law of Selective Observation. If the jets had chosen any other time, he would have known it was coming, forestalled it easily without real thought, and forgotten it promptly as unimportant. As it was, his first warning was the waldo suit's use of nonvisual input. It administered a sharp chill almost simultaneously in both of his elbows. By the time he could see Titan again, half a second later, thrust was gone and accelerometers showed that Oceanus was being slowed sharply by the dense atmosphere. His reflexes had already operated, of course, just a trifle later than they would have from a visual stimulus. The aircraft had practically no reaction mass in its tanks; he had been trying to replenish that at the time. The big satellite's gravity, which his body in orbit couldn't feel any more than it could the deceleration, was feeble; if the craft slowed too much now, even the vertical dive he was entering

wouldn't get him back to ram speed from his present altitude. Diving into the surface would not hurt him physically — the waldo's feedback didn't go that far — but would still be a bad tactical mistake. Ramjets could not be picked from trees, even if there had been trees this far from the sun. For increasingly scary moments the tension mounted as his elbows stayed cold; then ramflow resumed simultaneously in both pipes and the speed of his dive abruptly began rising with the restored thrust. Still reflexively he pulled out into horizontal flight with over a hundred meters to spare, put his nose — his own, not the ramjet's — in the face cup and moved his head slightly to run the Aitoff screen through its half dozen most-likely-useful vision frequencies. He was already pretty sure what had caused the stall, but pilot's common sense agreed with basic scientific procedure in demanding that he check.

Yes, he was still in the updraft; the screen displayed the appropriate false-color all around him, and the waldo — which doubled as an environment suit, and therefore did not interfere

with his breathing system -- was reporting the excess methane as a salty taste. As usual, there had been no one but himself to blame. He'd been driving just a little too slowly, trying to see below while filling the mass tanks, and a perfectly ordinary but random and quite unpredictable drop in the density of the rising current had raised the impact speed needed by the jets. If there'd been nothing backing up the interrupted visual sensors he'd have learned too late and had over a hundred meters less leeway.

No point thinking about that.

"What happened, Sarge? Or shouldn't I ask?" Barnlager, Belvew's co-tanker and watch partner, didn't bother to identify himself, only a few dozen people were anywhere near Saturn, and everyone knew the voice of everyone else who mattered. As Belvew's "buddy" one of his jobs was to check with Gene vocally or in any other way possible whenever something unexpected occurred, the "shouldn't I ask" was a standard courtesy. Not everyone enjoyed admitting mistakes, however important they might be as data, and the terminally ill people who formed an even larger fraction of the Titan exploration crew than of Earth's remaining population were often touchy.

"I rode too close to stall. It's all right now," Belvew answered.

"Use anything from the tanks?"

"Nothing to me. There was enough room to drive-start." Belvew did not mention just how little spare altitude he had had and linger didn't ask.

"You're still over Carver, aren't you? You could have put down and tanked up from the lake." This was quite true, but neither speaker mentioned why the pilot had dodged that option without conscious thought. Both knew perfectly well; linger's stress on the "could" had been as close to being specific about it as either cared to go. He changed to a neutral subject.

"You seem to have the fourth leg about done," Belvew made no answer for a moment; he was spiraling upward to start another pass through the raindrop-rich updraft-- at a safer altitude this time. He wanted mass in his tanks as soon as possible, but was now prepared to accept the lower concentration to be found higher up. In standard light frequencies his target was indistinguishable from an Earthly thunderhead -- there was even lightning, in spite of the nongrular nature of the droplets, and Belvew faced the task of making several passes through it fast enough to avoid another ram stall but slow enough to escape turbulence damage to his aframe.

"Just about," he answered at last. "I still have enough cans to finish Four and most of Five. I hope all the ones I've dropped so far work. I'd hate to have to go back just to make replacements. There's too much else to do." He fell silent again as the waldo began pressing his body at various points indicating that Cerebus was entering turbulence. His fingers, shoulders, knees, and toes exerted delicate pressure-- now this way, now that-- on the suit's lining, answering the thumps he could feel and forestalling the ones the Astoff screen was letting him anticipate by sight. For nearly two minutes the aircraft jounced its way through the vertical currents, and as the turbulence eased off and the air around his viewers cleared the pilot gave a happy grunt. He would have nodded his head in satisfaction, but that would have operated too many inappropriate controls.

"A respectable hit. Nine or ten more runs at this height should give me takeoff or orbit mass."

"Or several dozen stall recoveries," his official buddy

couldn't help adding. Belvew let the remark lie, and two or three minutes passed before anyone else spoke. The rest of the team had their own instruments and could read for themselves the rise of tank levels as the jet's collection scoop gulped Titanian air, centrifuged the hydrocarbon fog droplets out of it, stored the liquid, and returned the nearly pure nitrogen to the atmosphere.

"There's another odd surface patch a few kilos west of Carver," Maria Collos' voice came at length, as the mass tanks neared the seven tenths mark. "It wouldn't take you very far off plan to look at it before you start Leg Five."

"Like the earlier ones, or something really new?" asked Belvew.

"Can't tell for sure in long waves. It could be just another bit of melted tar. Even if that's all, we're getting enough of those to need explanation."

"One would need explanation," snapped Arthur Goodell, the least patient of the group usually, and excusably because of the endless pain of Synapse Amplification Syndrome. "I can see -- so can you -- how tars would settle out of the air as dust at this temperature. I can see dust getting piled into dunes even in the three kilo currents that pass for gales here. I can see it looking like obsidian if it gets melted and cooled again. What I don't see is what on this iceball could ever melt it."

"I've suggested methane rain, dissolving rather than melting the surface of a dune as it soaks in and forming a crust as it evaporates," came the much milder and thinner voice of leukemia case Ginger Xalco.

"And I've suggested landing and finding out first hand whether those nice, smooth, glassy hillsops are the thin shells of evaporates over a dune, as you're implying, or the tops of magma lenses," snapped Goodell. "When do we do that?" You've plenty in your tanks now, Gene. Why not take a good look at this new one -- whether it turns out to be just another for Maria's list or something really different? And don't tell me it's against policy; we're here to find things out, and you know it. To quote the poetic character who wrote our original mission plan, "there's no telling in advance which piece of a jigsaw puzzle will prove to be the key to the picture."

"It's not a matter of set policy," Belvew replied as mildly as he could -- he had his own troubles, even if they didn't include SAS. "Avoiding risk to the jets before the surface and weather gear are all deployed is common sense, and you know it. Once they're in action, long term studies can go on even if we lose transport. We've made one landing to deploy the factory, and a couple of others to restock from it, after all."

"I know. Sorry." Goodell didn't sound very sorry, actually, but courtesy had very high priority. "It'd be nice to be around when some of the results crystallize, though. And you can't count the later landings because they were in the same place and we knew what to expect."

"Not exactly. The original shelf was gone."

"The area was plain Titanian dirt, with no cliff to fall down this time. Even I could probably have set down safely." No one contradicted this blatant exaggeration. "The old saw about dead heroes --"

"Doesn't apply, Arthur." Maria, somehow, was the only one of the group who could manage to interrupt people without sounding rude. "We're already heroes. We've been told so." There might or might not have been sarcasm in her tone. No one else, even Goodell, spoke for a moment. Then Belvew referred back to the landing question.

"There's no reason I shouldn't make a ground check after finishing the Leg Four, if Maria's radar and my own

eyesight can find me a landing and takeoff site. Actually, we're all as curious as Art about the smooth stuff, and it's good tactics to eliminate possibilities as early as we can. Let me top off these tanks just to play safe, and then you can put me back where I left Log Four, Marja. After that's done I'll scout your new patch for landing risk."

No one commented, much less objected, and Gene made his remaining passes through the thunderhead with no actual stalls. There were no remarks about his two close calls, either; everyone had flown the ramjets at one time or another except Goodell, whose own senses were drowned in pain too much of the time to let him use a body waldo, and Pete Martucci, whose reflexes, though he was the only one of the dozen not known to be dying of something, had never been good enough for piloting. All knew the ordinary problems of flying.

"Standard turn left four five point five," Marja said without waiting for Belvew to report that his tanks were full.

"Left four five point five," he acknowledged, banking promptly to seventy-four degrees. The group had established a half-Earth gravity as a "standard" coordinated turn on Titan. The ramjet's wings, stubby as they were, could still give that much lift at ram speed below ten kilometers or so altitude. He snapped out of the turn in just over sixteen seconds, since mission speed was an equally standard one hundred meters per second when nothing else was demanded by circumstance.

"Your heading is good. You'll reach the break in Log Four in two hundred fifteen seconds from -- NOW! Nose down so as to reach three hundred meters at that time. I've allowed for the speed increase at your present power setting, so don't change it. On my time call, level off and do a standard right turn of one seventy seven point three. Start dropping cans at standard intervals ten seconds after you finish the turn. The leg ends at the twenty-second can."

"Got it," Belvew remembered again, with the aid of the blunt needle mounted in the suit under his chin, not to nod. There were no more words until the time call, and no more after it until the last of the pencil shaped and sized "cans" -- containers for seismometers, thermometers, ultramagnetometers, and other gear -- needed for the fourth leg of the planned seismic network had been ejected.

"Okay, Marja, take my hand." Belvew nosed the jet upward as he spoke. All the others were listening and watching as their particular instruments allowed except Goodell, who was meticulously testing the output of each of the recently dropped cans. None interrupted the terse directions which formed the response to the pilot's request, and he hurried northward along the eastern shore of Lake Carver eight hundred meters above its surface with his earphones still silent. He knew they could follow his progress on their duplicates of his own Atoll, and that he could expect to have his attention called to anything he seemed to be missing, so he concentrated on the screen area a third of the way from center to lower margin. This covered the region he would pass over in the next few seconds. It was only slightly distorted by the projection which let a single screen squeeze the full sphere into an ordinary human field of vision, though this mattered little; everyone had learned long ago to correct in their own minds even for the extreme warping at the edges. No part of the aircraft itself showed; though some of the two dozen cameras mounted in various parts of its skin did have wing, nose, or tail in their fields, the computer which blended their images on the single full-sphere display deleted these.

Unfortunately,

The liquid surface was currently glass-smooth ahead and

left of the jet, though even Titanian winds could raise waves; gravity was weak and liquid density low, and the highest winds occurred over the lakes themselves where evaporation lowered the air density far more than temperature changes could. Belvew gave the lake only an occasional glance, keeping his main attention on the land ahead where the patch to be examined should be.

"Three minutes," came Marja's quiet voice. The others remained silent. "Two. You might be able to see it now." The pilot scanned through his vision frequencies again, dodging the longer wave lengths which were more strongly absorbed by methane.

"I can, I think. Forget timing. I'm slowing to ten meters above stall -- no, make that twenty for the first run -- and going down to a hundred meters, and I'm cutting out the random reality reminder. If I lose track too seriously with where I really am we can cut my shift short later. I'll recover. The air looks steady, but I don't want another stall at this height."

No one objected aloud, though there must have been mental reservations. Belvew was the pilot for now; it was up to him to weigh relative risks to the aircraft. Negative comments would have been distracting, and therefore dangerous as well as discourteous.

The smooth patch grew clearer as the seconds passed. It was larger than most, about half a kilometer across, roughly circular but with four or five extensions reaching out another hundred or hundred and fifty meters at irregular points around its circumference. It might have been an oversized amoeba as far as outline went. The color seemed to be basically black, though it reflected the pale reddish-orange of the Titanian high smog as though from glass.

No small details could be made out from the present altitude and speed. Gene banked to a much less than standard turn rate for this speed, swung in a wide, slow circle north of the patch, and made a second pass in the opposite direction. This time the reflection of the brighter section of southern sky where the sun was hiding could be made out; the surface looked more than ever like glass, as Marja had described the others on her map, but there were still no informative details.

He made two more runs, this time at thirty meters above the highest point of the patch and only two meters per second above ramstall, tense and ready to shift to rocket mode -- to cap the intakes and send liquid and extra heat into the pipes at the slightest drop in thrust. He was not worried about the wings stalling; even those stubby structures had plenty of lift area in this atmosphere and gravity, and the jet had been designed so that they would go out at higher airspeed than any control surfaces.

Nevertheless, his attention was enough on his aircraft and far enough from the ground so that it was Barn who spotted the irregularity.

"There's a hollow about ten meters across half way from the high point to the base of that northwest arm. It did funny things to the jet's reflection as we passed this time, but I can't see it now. I can't decide exactly how deep it is, but it's just a dent, not a real hole."

"Did anyone else spot it?" asked Belvew. Most of them had, but none could give any better description. The pilot made another pass, this time devoting a dangerous amount of his attention to the surface below, and saw the feature for himself, but he could make out no more details than the others.

"You know we're going to have to land sometime," Goodell said in what was meant to be a thoughtful tone.

"I know." Belvew was thinking too. There was half a

minute's pause before the remote-lab manager tried again.

"What time is better than now?" The pilot could answer that one.

"When we know more about the strength of that surface. If it's just a crust, as the rain theory suggests, *Oceanus* could break through and smother the jet scoops in dust, or mud, or dirt, or whatever from the stuff under it happens to have."

"You have plenty of cans. See what happens when one of them hits. You needn't use its chute; let it hit as hard as Titan can make it."

"Good idea." The pilot, with much relief, cautiously raised his speed to standard — too sudden a boost to the flame could make the pipe frontfire — and climbed to a full kilometer. There was still no wind, but the patch was a harder target than he had anticipated. Without its parachute the slender container took much longer to lose the jet's speed, as all had expected but none could estimate quantitatively. The first attempt overshot badly. Belvew couldn't see it, but Inger and Collos followed it with other instruments until it buried itself beyond detection in ordinary, firm Titanian "soil" a hundred and fifty meters beyond the edge of the glassy patch.

The second try, with Barn calling the release moment, was much better and quite informative in its way. The can's own instruments stopped radiating at the instant of impact, taking passive measurements, but Maria's shortest viewing waves showed that the little machine, solid as it was, had sheltered on contact. The surface seemed pretty strong. Belvew was less happy than he might have been; if the can had broken through undamaged it would have implied a crust too weak to take the jet's weight, much less the impact of a poor landing just here and now.

As it was, the next test appeared to be up to him. He thought furiously. Would anything except an actual landing tell them what they needed to know?

The jet lacked landing gear in any ordinary sense; there were no wheels, floats, or real skids. Its belly was shaped into a double keel meant to give it catamaran stability in an attempted liquid landing and broad support on dubiously solid surfaces, though once stopped the body would sink to something like three quarters of its diameter in the best-guess mixture of Titan's lakes. It would float a little deeper in pure methane. This was why no one wanted to make the first lake landing; it had not occurred to anyone until much too late even to calculate, much less test, the results of attempting a rocket mode start with the pipes totally immersed in liquid. The log of the Earth to Saturn orbit had several similar annoyed entries.

The keels were adequate landing skids on a solid surface; one could make a pass at just above wing stalling speed, grazing the apparently smooth hump. If he did it right, he might resolve the question of whether the patch was solid or crust. If the latter, of course, there would be no certainty about its ultimate strength until the jet came to a stop and the wings lost all their lift.

The convexity of the surface complicated the problem slightly. If he hit too hard, easy to do on the upslope side, the question of whether the crust was stronger than the jet's belly and keels would also become relevant.

The initial landing, Earth days before, had been on a smooth shelf of ice near the foot of the steep side of what looked like a tilted block mountain; Titan seemed still active tectonically. There had been no trouble anticipated in detail, though of course the pilot — Inger, at that time — had kept alert for the unforeseen. This was fortunate, since the exchambs had started a thermal-shock crack in the ice which chased the jet for most of its landing slide. The pilot had just managed to avoid

riding to the foot of the hill on several million tons of detached shelf by a final, quick shot of thrust. The three hours it had taken for the factory pod to climb to the bottom, get to a safe distance from the cliff face and the new pile of ice rubble, put down roots and start growing had been spent in a high state of tension. Not just by Inger.

When it seemed certain that no more pods would have to be sent out, the fact that only a short length of ice shelf remained for takeoff had to be faced. Inger had been forced to use more than normal thrust, and while he concentrated his attention straight ahead, the rest of the group watched another crack chase him along the shelf, and more ice rubble fall, bounce, and roll toward the new factory. There was no longer any ice platform to land on when he did get into the air. The two later descents to pack up cans, once the factory had matured, had been on "ordinary" ground and proved uneventful. The drag on the skids, which all had feared might stress the aircraft too highly — thus was why the ice shelf had been chosen for the first touchdown — had been sharp but not dangerous, and the subsequent takeoffs had presented no problems except a rather larger demand for reaction mass than had been hoped.

Belvew remembered the ice landing vividly as he planned his present one. Some dangers were more foreseeable this time, but there was the chance that concentrating on these might lessen his readiness to respond to something unforeseen as promptly as his friend had done.

Well, *Thera* and *Crua* were still available at the orbiting station, and the chance had to be taken sometime. No one would blame him for losing *Oceanus*.

At least, not aloud.

He called for a wind check — even a few kilometers an hour could make a difference — and held a constant heading for ten kilometers while Inger adjusted a superimposed grid on his own screen's image. Eventually the moving ground features followed one of the lines and let him to their apparent motion.

"Only one point seven, from eighty seven," was the verdict. Belvew swept out over the lake without asking Maria for a heading, lined up with the patch from a dozen kilometers to the west, and eased back on his power. He nosed up enough to split the result between descent and speed loss, and reached the shore fifty meters above the liquid and a scant two meters a second above ram stall. Chewing his lower lip, which fortunately affected no waldo controls, he closed the ram intakes and fed the liquid to the plasma arcs. There was a grunt of admiration which might have come from Goodell; the shift to rocket mode was almost perfectly smooth. The longitudinal accelerometer swung promptly to a negative reading, and stayed there as Belvew tamed down his fires even more. He was approaching wing stall now, and began increasing the camber of his lifting surfaces toward the barrel-section shape which had been used so few times before, and never by him. He should, he suddenly realized, have done a few practice stalls two or three kilometers higher. He convinced himself quickly that breaking off the approach and going up to do this now was not really necessary but didn't ask for anyone else's opinion.

The rippled dust was fifty meters down — forty — thirty...

The glassy convexity loomed ahead, rising to meet his keels. He nosed up even more, killing descent briefly while unspeed continued to drop. The bulge kept rising toward him. Without orders, Inger began calling speed. The wings should maintain lift down to sixteen meters per second, Belvew knew, and the stall then should be smooth. Some levels of theory

Harsh Mistress SFA

were pretty solidly established.

"Twenty-two zero -- twenty-one nine -- twenty-one eight..."

The keels were two meters from the bulge, and he nosed up still farther to keep them so as the airspeed continued to fall. That wouldn't work much farther; past the top of the dome he'd have to drop the nose to make contact before stall, and that would speed him up. Not much in Titan's gravity, but any would complicate the maneuver.

The side edges of his screen, representing the view to the rear, darkened suddenly, but he kept his attention ahead. If there was anything really important aft, someone would tell him, though he hoped they wouldn't before he was stopped. For an instant he wished he were actually riding the jet, so that he could feel when touchdown occurred.

But he knew anyway. The accelerometer and three human voices supplied the knowledge simultaneously. He stopped reaction mass flow and quenched the plasma fires almost completely, but kept ready to use fractional rocket power on one side or the other if a swerve developed. Any yawing could roll the *Oceanus* onto its back, and it seemed most unlikely that whichever wing was underneath could take such treatment.

"You're down!" came Ginger's voice, this time separate from the others. Belvew sacrated faintly, and spared enough of his attention to utter a bit of doggerel which had survived in various forms from the time of fabric-covered aircraft.

"A basic rule of fliers, and all who've ever hoped: a ship is never landed until it's really stopped."

But deceleration was now rapid as the keel friction made itself felt, and a quarter minute later the landing was complete. Belvew knew he wouldn't feel it, but his stomach tightened up anyway for several more seconds as he watched strewn and vertical motion meters for evidence that the ship was breaking through a crust.

Apparently it wasn't, and at last he felt free to let his attention focus on the view aft.

The screen darkening was from a slowly spreading cloud of black smoke, its nearest edge well over a hundred meters astern. It could not, the pilot saw at once, have been produced by friction between his keels and the surface; his landing slide hadn't started that far back, and his thermometers showed that the keels were at about a hundred and fifty kelvins. They were cooling, but not so rapidly as to suggest they had been hot enough to boil Titanian tar in the last few seconds.

Not that anyone really knew what temperature THAT would take, he reflected fleetingly.

More to the point, a fairly deep trough in the surface, starting just below the near side of the smoke cloud and extending as far back along his approach path as he could see, confirmed that whatever had happened to the surface had come before touchdown. The most obvious cause was the exhaust from his pipes.

The smoke was being borne very slowly away from him by the negligible wind. The trough, perhaps half a meter deep and ten or twelve wide, remained uniform as the receding cloud revealed more and more of it, extending down the slope of the convexity. The jet had come to rest almost exactly at the top of the bulge, it seemed; both pitch and roll axes read within a degree or so of horizontal.

"If it's a crust, it's pretty thick," Goodell remarked.

"Unless the jets melted their way down and just produced more of it," rejoined Ginger.

"Could be." Being human, Goodell liked his own idea

better; being a scientist of rank, he knew that alternative hypotheses, however unlikely, should always be developed as early as possible in hope of maintaining objectivity. "Let's get samples."

Belvew had powered down the flight controls, except for those which might be needed for emergency takeoff, and could safely nod his head, not that anyone could see him from their quarantine compartments.

"All right, in a few minutes. Non-destructive examination first. I assume everything in sight's been recorded; now let's look."

"Right." Goodell's voice was a fraction of a syllable ahead of the others. Belvew activated the short-focus viewers on the lower part of his fuselage, and allowed their images to take over the Astoff screen as his friends above chose -- no, not above, he reminded himself; he was above with them, another real-surroundings reminder must be due. No one, however, said anything for several minutes; the surface still resembled obsidian at every magnification available and at every point the viewers could reach. The depression seen from the air was now bidden by the curve of the hill ahead, even though they were looking from its top, and the nearest point of the track presumably made by the exhaust was too distant for a really good look.

"I guess we dig," Pete said at last. Belvew nodded again, as uselessly as before, but operated more of his controls.

The object which dropped from between the keels might almost have been an egg-shaped piece of the surface itself, as far as texture went, about fifty centimeters in its longest dimension. Until it reached the ground, which took an amazingly long two seconds or so in Titan's gravity, it appeared totally featureless. When it did strike, it flattened on the bottom to keep from rolling, uncovered a variety of optical sensors on the top and sides, and extended banding and digging apparatus, coring tools, and locomotion equipment.

Structurally and functionally, it straddled the accepted arbitrary borderline between nanotech equipment and pseudolife; it had been grown like the cans, not manufactured, and much of its internal equipment was of molecular size.

"Take it, Art. Where to?"

"Aft. I'd say. I'll sample at each meter until we reach the exhaust trail, and then really dig. The smellers report ready."

The "smellers" were of course the analytical equipment, and everyone began to tense up again as the egg crawled to its first sampling point and scraped up a specimen.

"How hard?" queried several voices at once.

"About three. If it's a crust, it must be pretty thick to take *Oceanus*' weight."

"Composition?" This answer was slower in coming, naturally, but overall percentages were ready in less than a minute.

"Carbon fifteen point seven one; nitrogen eighteen point eight eight; hydrogen four point one one; oxygen twenty-eight point two five; phosphorus --"

"Phosphorus?" Again, several voices merged. The first three species had all been observed in samples of the atmospheric smog, and there was nothing surprising about the oxygen, since water ice had been seen; but this was the first element past the second period to be detected on Titan. It was also something more hoped than expected. Study of prebiotic substances had high mission priority, but no one had been sure there would be anything of the sort to study; and even the now pretty certain tectonic activity might not bring material from very deep in the satellite. That would depend on

the still unknown cause of the activity.

Regardless of the fact that only two thirds of the sample mass had been accounted for, Ginger Xalco called out emphatically, "Structure, for goodness' sake."

No one suggested that the elemental analysis be finished first, certainly not Goodell, who might have pulled rank if he had chosen, but who shared her feelings. He set appropriate internal machinery to work while the lab crawled on to its next sample site, and its next, and its next.

"It's a gel, really," he said at last. "The solvent -- pardon me, dispersing agent -- is methanol. Most of the rest of the material seems to be polymers of one sort or another. Some of it's carbohydrate, a lot has nitrogen, but it's going to take a while to find whether we're dealing with what we'd consider proteins -- polypeptides made of the same amino acids we are."

"Left or right?" asked Collos and Marucci together.

"You'll have to wait even longer for that --"

"Wait a minute!" Inger cut in. "Even at this temperature and gravity a gel has no business holding up a jet for very long. Goto back to outside coverage! Quick!"

Belvew didn't need to ask what his partner had in mind; he flicked his Airtuff back to the outside scene instantly. For a moment he felt relief, and then took a second look at his keels. Without word, warning, or delay he fed energy and mass to the plasma area and watched the main accelerometer, wishing once again that he could feel the jet's response directly.

For a moment the meter stayed at zero; the surface seemed to be clinging to the keels, which had sunk into it for several centimeters, and Belvew slowly increased the thrust. Then the landscape suddenly jerked backward, and a moment later Oceanus was airborne.

Goodell gave an indignant cry as his lab, caught by the exhaust, stopped sending data. The pilot paid no attention for the moment, as he concentrated on reaching ram speed as quickly as possible while using a minimum of mass; it was Inger who answered the complaint.

"Sorry, Art. We can grow more labs, but not more jets. Did anything else come in before we blew your machine away?"

"No. And we don't have the sample, either."

Inger pondered for a moment, then suggested, "Maybe we can find it. The lab should have held up; the exhaust cools pretty quickly, and we'd have been getting the data by beam to the plane. That would have been thrown off line. Order it to broadcast, and Gene can make some low passes back along the track; maybe we can get its signals."

"What if it reached the lake? It must have been blown that way."

"So much the better. We could use a reading on the composition of that juice. If is anything certain, it's that it's different from what we take from the clouds. Look at the bright side, Art."

The answer was a grunt which might have meant anything. Barn's instruments, however, showed that Goodell had indeed sent the "Broadcast" command to the lab; whether he was waiting more eagerly for resumption of data flow or for a chance to go on complaining was anyone's guess.

Gene had been listening, even with his attention on piloting. In spite of his sympathy for Goodell's feelings, he went up to a little over one kilometer, steered out over the lake to find a cumulus cloud and replaced the reaction mass he had just used. Then he increased thrust and nosed down--he was actually as impatient as any of the others, and more optimistic than most of them--and headed back toward shore and former

landing site. He was down to fifty meters by the time the glassy patch showed ahead.

He cut back thrust and allowed the jet to slow to ram-stall-plus-twenty, and made four passes over the area at that speed, first following and then paralleling the line of the earlier landing and takeoff.

No signals registered. With a grim expression which no one could see, and some muttered remarks which he took care no one could hear, he reset the camber, closed the ramjet intakes, and went back to rocket mode; but two more passes at a bare fifteen meters altitude and just above wing stall--neither Goodell or anyone else was going to say he hadn't tried, whatever they might think of his flying judgement--still produced no signals. The lab had either been wrecked, though that still seemed rather unlikely, or was too deep in the lake for its signals to be picked up. The presumably nonpolar liquid shouldn't interfere greatly with radio waves, but in broadcast mode any great depth certainly would. Titan was a strange place, but the inverse square law still applied. There was no basis yet even for guesses at the depths of the liquid bodies; that item had a very low priority in the program, though it would come eventually.

"Sorry, Art," Belvew said at last as he increased thrust, returned to ramjet mode when speed sufficed, and began to climb away from the area. "I had hopes too, but I guess we've lost it. Have you any ideas what could produce a gel here?"

"I have enough trouble guessing what could produce methanol."

"Why?" retorted Belvew. "The makings are all there. Ice and methane could do it directly, with release of hydrogen. Maybe some of the pre-life catalysts you're hoping we'd find are actually here, if you think the reaction would go too slowly at sixty K's."

"Naughty, naughty!" cut in Maria. "Catalysts wouldn't help. That's endothermic to the tune of over a hundred kilojoules. For a moment Gene felt an impulse to kick himself. He knew the woman hadn't had that datum in her head, but he, too, could have called it up before making himself sound silly. Then he saw a way out.

"The energy could come from local heat," he said, trying to keep smugness out of his voice.

"At ninety kelvins?"

"Sure. I did mention the other product. Hydrogen would leave the scene, so no back reaction."

"That would happen only if it could leave the scene," Goodell had pounced on the hypothesis, and was enjoying himself. "That would be at or very near the surface, not deep underground."

"Or in or just under a lake," Ginger cut in. "We'll have to look for bubbles."

"And lower than ordinary temperatures," Belvew finished. "All right, we'll look. Do some planning, you types with imaginations. I'm going to hat Lite Five. Give me direction and time, Maria."

The fifth planned seismic array was a quarter of the way around Titan from Lake Carver, ten or eleven hours flight at standard jet speed and over two even at full thrust in the thinner air tens of kilometers up. Belvew set everything on automatic, turned his watch over to Maria, and decided to eat and sleep. He needed the rest. A healthy twenty-five-year-old might have gone through the last four casually, but he belonged to neither category. There were few now on Earth who did. Evolution of disease organisms had gotten farther and farther ahead of medical research; several dozen, counting

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new variations of older ailments such as leukemia, were now on the list of major health problems. Four of these involved sterility, three of them in women. Earth's human population had actually halved in the last four decades, and the average age was barely twenty years in spite of, or because of, the species' usual reaction to any major threat.

Suggested explanations among the panicked survivors were legion; satisfactory ones nonexistent. Even supernaturalists had had to fall back on Noachian-flood-type divine wrath at general malice rather than specific sins. The scientists had done better, but not very much; each virus and other causal organism had been identified beyond reasonable doubt, but the information had not yet produced much effective treatment. There were two favored notions—they showed little sign of graduation to theories—among scientists about the basic cause of the trend: the organisms had been tailored by people with unspecified, but presumably insane by most standards, motives; or the sudden appearance of so many almost at once was merely a statistical event like a baseball batting slump or winning streak.

Belvew, who liked people, preferred the latter idea, but was too good a scientist to feel sure of it. CPKS, the ailment which would finish turning his own bones to something like eggshell china in another two or three years, would have taken only a little manipulation to produce from a normal human genome.

He shifted to full automatic control, cutting out the waldo entirely, and extracted himself from the suit. It could use servicing too; he floated back to his own cell and napped while its various life support devices were recharged, cleaned, and otherwise readied for further use. The suits were not full-recycling, indefinitely lasting affairs; they had been designed foremost as waldos. They did, of course, have fusers and life support capacity designed for Titan's environment, but could keep the wearer comfortable for only thirty hours or so there, and alive for perhaps twenty more.

Calcium-phosphorus recrystallization syndrome also, while robbing him of energy, kept him from sleeping for very long at a time, so he was back with *Oreosaur* well before it reached the planned site of the next seismic array. There was nothing to do but watch scenery and, of course, hypothesize on the cause of the various features. He could see the ground well enough from this height, since he could use frequencies able to pierce the small amount of smog which was below him. There were block mountains and rift valleys; there were lakes large and small. The background, as well as the covering of nearly all the more or less horizontal area, might be the hypothetical tar dust; the factory had been planted on such a surface, but at the time no analysis had been possible. Neither cans nor labs had yet been grown.

None of the lakes was large enough to be called an ocean, as mapping from orbit had made clear enough. However, it now seemed that fully a tenth of the satellite's surface was occupied by such bodies, ranging in size from Carver, about the area of Earth's Lake Victoria, down to puddles. The Collos Patches were neither as numerous nor as large, but far from rare.

The locations of the lakes were to some extent controlled by topography, of course; water is a unique liquid, but not in its tendency to flow downhill. Nobody, however, had yet found any order or sense in the size, location, or arrangement of the smooth patches. Belvew amused himself, as he had before, in trying to organize patterns out of those he passed over. He reached his target area without coming up with anything more

meaningful than constellations.

Maria, who had also slept, warned that it was time to decrease thrust. The jet began to slow and settle. A real-surroundings interruption occurred just after the descent started, and Belvew wondered briefly whether he should override the device. He decided against it; his tanks were full, he would be travelling high enough and fast enough to preclude any kind of stall as he sowed the cans, and vertical disturbances could be seen at a safe distance. It was only while inside them, slowed down to collecting speed, that there was any danger.

Any known danger, he reminded himself. Any known danger except identifying too closely with the aircraft, which the interceptions were intended to prevent. He brought his attention back to the job as Maria began issuing more specific directions.

He had lined up on course, reached standard speed and delivery altitude, and released the first dozen of the Line Five cans when an interruption came from a voice no one had heard for weeks. It had announced then that the last of the six relay stations which kept the station in potential instant contact with all of Titan's surface was properly adjusted in orbit, and thus cleared the crew to get the actual project under way. They had mostly forgotten it since.

"There is a change in map detail at the factory site. Please evaluate." The speaker was Status, the data handler dedicated to constant rechecking of the surface, the orbits of the station and relay units, the operation of the closed-cycle life support systems, and the current medical condition of each of the explorers. Its announcement automatically put Maria, responsible for surface mapping, in charge. As usual, the voice with which she responded was calm.

"Gene, you're on track. You still have forty-four cans on board, which will complete about two-thirds Line Five. When they're gone, your heading back to the factory starts at three elevon. I'll get back to you with more headings for the Great Circle when you need them, or brief Status if it seems likely I'll be too busy. Barn, standard: keep an eye on Gene. Art, get any readings you can from the factory itself while I check the details Status couldn't handle. The rest of you carry on. I'll keep everyone informed." She fell silent for several minutes while she examined the surface around the factory with every frequency at her command.

"The change," she resumed at last, "seems to be the appearance of another of our glassy patches. Its texture is identical with the others, as far as I can tell. It is almost perfectly circular, just over twenty meters across, and its center is one hundred-forty four meters from the opening of the factory's release port and directly in line with that opening—that is, directly north. Azimuth zero."

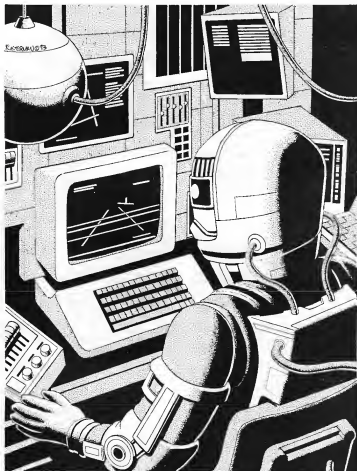
"How long did it take to reach that size?" asked Goodell. "Can Status tell us when the last check of the site was made? And are there enough observations to tell whether it appeared all at once or grew from a center?"

"Less than four hours, yes, and no," replied the mapper. "That's the time of the last check, and there was no sign of the patch then. Does the factory itself have any data?"

"Fraid not. It's been making twenty cans and one lab an hour and paying no attention to above-ground surroundings since it opened."

Everyone was hearing this exchange, of course, and Belvew cut in without allowing his eyes to leave his screen.

"Above ground? But how about below? Do any of its roots go toward the patch?"



Goodell was silent for some seconds, and finally answered in a rather embarrassed and surprised tone, "I can't tell. Roots went out in all directions, of course, and I can tell pretty much what materials have been coming in through each major one, but we never thought of needing to know just which absolute direction any one root was taking."

There must have been a spectrum of reactions to this announcement, but neither laughter nor anger was audible. The jet ejected several more cans before its pilot could think of another useful question.

"The root which went east, toward the cliff, would be picking up water sooner or—well, sooner. The factory couldn't have started production without oxygen. Does any one of them show a richer water take than the others?"

"Yes. Much richer. Number 12."

"Then it's a reasonable guess that that one went toward the mountain, which seems to be a block of ice. Whichever is ninety degrees counterclockwise from Twelve must be pretty close to under the new patch, right?"

"Right. Unfortunately—"

"Unfortunately? You mean you don't know the relative directions either?"

"No. I don't know whether the numbers go one way or the other, or even if the numbers are in order. I labelled them as they started to pick up raw material. Sorry. Even if we'd wanted to, there was no other way to distinguish that."

"So there goes any chance of analyzing that patch with the factory."

"I'm afraid so."

"So I go back and plant more labs around the factory."

"You drop the rest of your cans first," Maria cut in. "It won't make much difference in time. You'll be a couple of hours getting back, and it's where you'd be going anyway for more cans. There's no reason to believe there's any hurry; we don't know what causes these patches, and we can find out enough by watching this one grow if it does."

"There could be need if the factory itself has anything to do with its appearance," Goodell pointed out. Belvue started to say something, but Maria was first.

"We'll worry about that if it seems in order. I'll watch how fast, and which way if any special one, this thing grows. If it does. Art, keep really close tabs on the factory's behavior; that's the only other thing I can think of which might let us know of any such connection. Any other ideas?"

"Five cans to go," Belvue answered, with no obvious relevance. "What was that return heading again?"

Maria told him, and he finished his run in silence. He then climbed to compensate height—air thin enough for low resistance while still dense enough for the ramjets—eased in full thrust, took up the Great Circle heading back to the factory, set *Oceanus* on automatic control, and shifted his screen to the instruments being used by Art, Maria, and the others. There would be no verticals at this height, and he refused to worry over unknown dangers, especially when Barn was also watching. On top of everything else, as far as his own attitude went, while scientific/military procedure was of course an important and sometimes even a life-and-death matter, freedom to pay attention to a problem was equally so. The usual rank distinction between theorists and mere observers was absent here. The smooth patches might not be a military or any other kind of risk, but they now involved a basic situation change near the only equipment source currently on Titan—one which would take days at least to replace, if they did have to plant a new factory—and the more minds engaged

on the problem the better.

Barn lingered just the same, and he couldn't see the jet's wings either.

It was daylight at the factory site, and would be for several more Earth days. The aircraft was on the night side, though Belvue expected to see the fuzzy, reddened hlob of the sun—much of the smog was still above him—in another few minutes. Both factory and flyer were on the hemisphere away from Saturn; to see the big disc, pierced by the needle of its edge-on rings, he'd have had to shift to a real-surroundings view. Even that might not work, since the station naturally spent over a third of the time in Titan's Saturn-shadow, and usually neither he nor any of the others knew just where they were in its orbit. That was something for Status to keep track of.

Even by day, visible light was no use for examining the factory from above the atmosphere; much longer waves were needed, and for those to have really high resolution the readings from at least a few kilometers of orbit travel had to be combined into single "pictures" by the data processors. Maria could not, quite, watch her surface images closely in real time. By now, it had occurred to everyone in the group how nice it would have been to provide the factory with a camera, but no one mentioned this aloud. "If only's" were against military, scientific, and medical discipline as well as common sense; all of these demanded dealing with things as they were.

How things were was slowly becoming more apparent. Before Belvue could see the sun, Maria announced that the patch was six centimeters broader on the east-west line and eight on the north-south than it had been when first measured. Half-an-hour later both amounts had increased by another ten centimeters, and the distance from the centroid of the patch to the factory's nearest point was smaller by nearly a meter.

"Suggests it's actually moving, not just growing more one way than the other," Barn pointed out.

"Suggests I was wrong about its being caused by rain," was Maria's less enthusiastic comment.

"Are you sure? Would the factory report rain?" asked Belvue.

"No, but my viewers would. It hasn't rained there since we planted the rig. And I know rain when I see it; there's been plenty of it here and there on Titan. You ought to know, Gene."

"I do. It's always been from verticals either over the lakes or very close to them. The general winds are so slow that a thunderstorm always dies before it can get very far from the lake that spawned it."

"It seems to," was Goodell's more pessimistic word. "In any case, if all these things are gel like the one we started to examine, you'd have to explain how liquid methane turned into methyl alcohol."

"There was a suggestion about that, and the factory is close to an ice source," Ginger pointed out.

"But not to a lake," Maria admitted, still rather sadly.

"So Gene drops another lab the second he gets there."

"Of course," replied the pilot. "That'll still be nearly an hour, though. Aren't there a good many ready at the factory? Why not get one of those on the job—or two or three, if that'll make things faster?"

"Pete, you're the strongest of us by a good deal. If I unscrew my room, would you take the chance of a quick visit and kick me? You can hold your breath long enough."

"No, Art," replied Marisoli, "but not because I'm afraid of breaking quarantine. I'll come and stay as long as you want

if it will help your lab work, but I don't see how it would."

"Don't rub it in. I have a lab on the way, Gene." Goodell was obviously embarrassed, as the others would have been for him if they had not been equally guilty, and neither his morale slip nor the general oversight was mentioned again.

"Better do samples on the way to the patch, not just after the lab arrives. We'll need to compare the patch with the ground in its neighborhood," pointed out Ginger. This obvious suggestion made everyone feel better; they could all share the onus of not thinking to use labs from the factory long before, and the point had been stressed that Goodell needn't doom himself the only sinner.

The readings from the lowly travelling lab held everyone's close attention while the jet neared mountain and factory and began its letdown. Since neither Belview nor Inger could have seen the white accumulation which started to grow on the leading edges of its wings shortly after the descent began, this made no real difference. Even when the pilot shifted full attention to his job as final approach and landing averted, neither his eyes nor his halo sensors told him what was coming, though the accumulation was now projecting nearly three centimeters. In effect it sharpened the leading edges, but did not yet make real difference in either lift or drag. With a few hundred more flying hours experience at a wide enough variety of altitudes and speeds, Gene might have come to recognize the tiny discrepancy between thrust and airspeed. Had he actually been riding in the jet for that much time, he might even have felt it.

And if the material had remained where it was until after he had touched down, no one might ever have known about it. There were instruments to read and report on skin temperature at many points on the machine, but not there, even with nano-and pseudo-life technology, and their effect of making complex devices almost costless to build, there were limits to how much could be installed on even a fusion-powered flying machine. The heat which leaked from the pipes and was at once carried away by the airstream, so that all but the few centimeters of wing adjacent to the nacelles themselves stayed at ambient temperature, now began to creep further out as the speed dropped to and below tens of meters per second.

The changing camber applied by Belview as wing stall approached may or may not have contributed to what finally happened. The operator's tiny pitch and yaw corrections as he maintained a straight and steady descent also may have contributed, or may not. A trace of turbulence in Titan's own air may even have been all that was needed.

Whatever the cause, the sharp white rim on the front of the left wing suddenly fell or blew away from the slightly warmed surface, and the lift on that side, already more dependent on wing area than on shape, dropped. It decreased only a little, but did it suddenly, and probably not even an automatic control could have done anything useful at such low airspeed.

The wing, short as it was, grazed the ground with its tip, and *Oceratus*' nose whipped down and to the left. Belview felt a simultaneous kick from practically all his turbulence sensors. At the same instant most of the central area of his *Aldoff* went blank, and the mosaic of sections which should have shown the view to the rear displayed only Titan's pale peach sky.

There was nothing useful to say for the moment, and Gene again made sure no one heard him saying it. "There couldn't have been any turbulence there!" was too much like an excuse for an adult, much less a disciplined and moderately high ranking scientist, to utter aloud. Everyone's thoughts

reached the same point on the logic route, though the milestones didn't always pass in the same order.

No ground camera views. No transport until. Seismic nets not finished. Weather traces not even started. Labs now available only at their source, and something odd happening there.

Humanity is a visually oriented species, and in seconds Maria was building a new image of the factory site, whose details improved moment by moment as data poured in from different directions. The factory itself was simply a square with rounded corners, a little over five meters on a side now that it had finished growing, saved from resembling a child's toy block by rain-gathering, light reading, gas ejecting and other apparatus on its roof. No one was looking at it yet, however.

The jet's nose was crumpled back almost to the wings; the ground it had tried to displace had yielded very little. The left wing and rim pipe were hidden under the fuselage, whose tail pointed upward at about sixty degrees. The right wing and engine, also pointing upward but less sharply, seemed undamaged, but image resolution was not yet down to single centimeters.

"So much for *Oceratus*. Is *Thera* ready?" asked Goodell finally.

"I'll check her out," came Ginger's voice. "I think I'm nearest, and I've just slept and done my suit."

"Are you willing to drive again, Gene?" Belview hesitated only a moment. The crash was presumably his fault, but there was no reason to suppose that anyone else could have avoided it; and the psychology behind the custom of a pilot's flying again as soon as possible after an accident was still valid even when the pilot wasn't in the aircraft at the time.

"Sure. I'm fresh enough. I'll nap, though, during the preflight. Call me when she's ready, will you, Ginger?"

"Should I hurry?"

"No!" Goodell was emphatic. "*Thera* hasn't been flown at all yet. Cover everything on the list, and anything else you can think of. If Maria reports some other change we may have to hurry, but not unless or until."

"I'll be good. Gene needn't worry."

"Who worries?" asked Belview. He received no answer, and relaxed in his suit. It seemed unlikely that there would be time enough to get out of it for a real nap. This estimate, of course, was based on foreseeable, not human behavior.

The station was far too massive for anyone to feel the reaction when a person pushed off from or stopped against a wall, but the departure of the jet was noticed by everyone. It was also identified, since everyone had felt it before. Reactions differed. Goodell and one or two others wondered momentarily whether they had been asleep and missed the end-of-checkout report. Peter Maruaca made a wry face, as though something he had expected had happened in spite of his hopes. Gene Belview was, for a fraction of a second, the most surprised, and of course Ginger *Xalco* was the least.

But Belview was quick on the uptake.

"Ginger! Why?"

"My suit's fullest, and it'll save time."

"We don't need to save time!"

"How do you know? I certainly don't!"

"My suit was serviced almost as recently as yours," Belview tacitly conceded the other argument. "It has nearly as much supplies."

"And I was less than three quarters the food and oxygen you do. Stop being futile; I've already outsped."

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Everyone by now understood the situation, but no one was silly enough to suggest, much less order, that the woman return with the jet. All relevant instruments showed that she had already killed enough of her station orbital speed to take the craft into atmosphere, and used most of the little reaction mass in Thera's tanks to do so. Return was not possible until she had refilled on Titan.

Nor was there any question of taking over from the rebel even if this had been useful. Her waldo suit was in the space designed for it on the jet, and any suit there had control priority unless the wearer deliberately ceded it. "Dead-man" override from outside was not possible; such a need had not been foreseen until much too late. Construction and energy were extremely cheap, but design was not; people charged more heavily than ever for their skilled services. As a result, many structures and machines were produced with performance well short of ideal, and even the best usually turned out to lack something. The situation was not entirely new in history, but greatly aggravated by modern conditions.

Even Goodell said nothing for general hearing. There was nothing useful to say for the moment, and what would be said later would never mention penalties, or violation of rules, or disobeying orders. Science, the search for understanding, had replaced much of the desire for personal territory, influence over others' behavior, or glory which had motivated so many of humanity's earlier high risk activities, but the need-for-knowledge culture had not evolved along quite the same lines as the religious-economic-military one. Social awareness-idealism or patriotism, though now for the whole species—was fully as great in the now vaguely militarized ranks of science, and demanded as much team effort as war, but not the same prompt and blind submission to orders which the latter had had to evolve when the opponents were other human beings rather than a universe with no personal survival urge.

Not quite so prompt and certainly not nearly so blind, but still involving risk. Ginger knew exactly what she was doing, and why; so, in spite of his hasty question, did Gene and the others. Nothing critical was said during the hour and a half Thera took to reach atmosphere and fall her two kilometer per second relative velocity; and even when she was flying rather than orbiting, navigation instructions from Maria and flying advice from the others made up most of the conversation.

The advice was not really needed, since Ginger had spent as much time in simulators and roughly as much actually flying *Oceanus* as any of the others, but somehow those still in orbit felt a need to keep meaningful conversation going—to "stay in touch."

Xalco, after tanking up, deliberately landed at higher speed than Belvew had done, but there was no way yet to tell whether this made the difference. Thera slid to a stop half a kilometer west of the factory. She would have come closer, but there were numerous objects on the surface between cliff and factory, and some even west of the latter, which had been tentatively identified by Maria's equipment as boulders of ice from the fallen shell. One of Goodell's labs had confirmed this, three separate specimens were nearly pure water ice, with a trace of carbonate dust. A debate on why this was not silicate had taken up much time between the discovery and the jet's landing, but no conclusions had been reached except that the news had better get to those on Harth as soon as possible. No one knows in advance which will prove the key piece of a jigsaw puzzle, but the unexpected screams for attention.

The landing approach had not been directly over the

mystery patch, but the exhaust had melted or blown a shallow trough in the regular surface and raised a cloud of smoke apparently identical to that of Belvew's earlier landing. This had not happened before, when landing had been made to pick up cans and labs from the factory. Something seemed to have changed, though admittedly the other approaches had been along different tracks. Possibly the apparently uniform area—uniform except for ice blocks and the still growing patch—differed here and there in composition. Goodell had all ripe labs now out and in action, and was sending out others as quickly as the factory completed them. Most, including Ginger, were listening to the analyses which Maria was numbering, tabulating, and locating on a map which usurped part of everyone's Aloff, and trying to make sense out of them. Belvew was the only exception. His attention was aimed more narrowly.

The form of the crashed *Oceanus* showed a few hundred meters from her sister jet, much closer to the strange patch, and he was trying to see why it had fallen. If the cause were actually turbulence there would probably be no evidence, but he still found this hard to believe.

"Art, could you spare a lab to sample around the wreck?" he asked at length.

"We'll get there pretty soon anyway. Any reason for special haste?"

"Well, Ginger landed hot, but there'll be a couple of seconds after lift-off when she'll be as slow as I was. It might be worth at least a check. Maybe the ground was warmer or colder, for some reason and grew verticals."

"How could it be?" The question, from Peter, was ignored by all but Barn.

"We're looking for chemical action," he pointed out, "and there's methyl alcohol to explain."

"All right," admitted Goodell. "Two labs on the way. Tell me where you want your samples, Gene."

Belvew went back to the view provided by Thera's eyes, and strained his own looking for points of special interest on and about the wreck. It would be a few minutes before the slow-moving labs reached the spot.

Several of Thera's cameras covered the remains, and with Ginger's consent he had first one and then another of them feed the proper spots on the screen and process their images with interferometer routines, trying to produce the clearest possible view. For some time he concentrated on the ground ploughed up by *Oceanus*, but could detect nothing special, and finally shifted to the jet itself. The labs had arrived and without his specific instructions were starting to collect dirt samples before he saw the interrupted white ridge along the leading edge of the uplited right wing. Parts of it, especially toward the tip, had not been shaken off by the crash. He pointed it out to the others.

"That shouldn't be there! How could I get wing ice here?"

"How do you know it's ice?" asked Barn reasonably.

"I don't, but it's where you pick up ice in Harth's atmosphere, and it had the same effect!"

"You're blaming it for what happened?" came Maria's quiet voice.

"Well, not yet." Jumping to conclusions was one of the cardinal sins. "Can you get a lab up there, Art?"

"I doubt it. They weren't designed to climb a smooth surface."

"That skin's hardly smooth anymore."

"True. I'll try." He suited the words with action, and for

over fifteen minutes sent one of his devices rolling and clawing its way along various upward-leading wrinkles in the crumpled fuselage. Each, sooner or later, narrowed enough to let the machine topple back to the ground, undamaged but ineffective. Goodell finally gave up. Belvew, less skilled but more anxious, tried from some time himself, with no better luck.

"It looks as though some of the stuff has fallen off," Inger pointed out at last. "There should be bits of it on the ground."

"If there are, I can't see them," replied Belvew. "I suppose we can just do lots and lots of tests all around the wreck, but how will we be sure that any offbeat result can be blamed on the white stuff?"

"We can be quicker than that," Ginger assured them.

"How?" asked Gene.

"I'll show you." Several of the listeners guessed what was coming, but kept their mouths shut; there was nothing they could do about it, and objectively Xalco was being smart. She was economizing on her suit time.

Those who failed to read the implication from her words understood a few seconds later as an environment suit with "GX" stencilled front and back entered the field of view of the jet's eyes. The walk was unsteady, even Titan's less than fourteen percent of Earth gravity was a lot more than any of the group had experienced for many months. She made good speed, however, never actually fell, and reached the wreck very quickly.

"I don't see anything white on the ground," she said. "It either fell off further back or got buried in the dirt *Oceano* ploughed up. Here, Art." She needed to jump only a short distance to bring one glove against the rim on the wing. It stuck to her suit when she tried to set it down beside the nearest lab, and she had to shake it off, leaving some liquid on her palm. All watchers tried to draw inferences while the lab unit did its work.

"Mostly ethylene, a trace of acetylene," Goodell reported tersely after a moment.

"Melting points?" Gene asked promptly, sure that Maria would have them on her screen at once. He was right.

"About 104 and 192 respectively," she reported promptly. "Check your own wings, Ginger; if you poked any up after you cooled down from entry, it would still be there."

"It is. I see it. It's lucky I landed fast, I guess. I'll wipe it off right now." Her suit disappeared intermittently, its image reappearing as odd patches and parts from time to time as she moved into and out of the view fields the computer was using for Autofit projection.

"Why did we pick that up these two times, and not on any of the earlier landings? And why pick it up at all, for that matter? There isn't much of either of those in the atmosphere." Gene was still puzzled.

"I think I can guess," Barn said slowly. "You don't need much, after all; water vapor usually doesn't compose very much of Earth's air, but it freezes on wings if they're cold enough. Those landings are the only ones made so far right after the jet had spent significant time up at compromise altitude, and really got its wings chilled. We can test that, if there's ever time, by going back up there for a while and doing stall exercises, at a safe altitude of course, after we get down again." He did not suggest reprogramming the Autofit computer to show wings. None of them could have done this.

"And until then, we make it a point to land a little hotter than we have been," Gene was relieved. "Good work, Ginger. You'd better come back up; you've used up a lot of suit time

already."

"I have plenty more. I'm going to take a close look at this patch while I'm here."

"I don't mean to be insulting, but you're budgeting time to fill your tanks, I trust," Goodell interjected.

"I am. But thanks for asking. Don't apologize." Her suited figure dwinded on the screens.

"The labs can do gas analyses, can't they?" She asked suddenly.

"Sure."

"Then hadn't we better look for free hydrogen? Remember the idea about the methanol production?"

"We'd need water, too," pointed out Barn. Ginger kicked at one of the boulders, almost overbalancing in the weak gravity.

"These look like ice," she assured him.

"They are. I checked them before," growled Goodell. "If you want a repeat—"

"I know. That can wait. I want to see this smooth stuff." She moved a few gliding steps farther, and squatted down. A lab moved slowly toward the boulder, guided from above, but the observer said nothing aloud. Of course this would be ice, too.

"Givel" Came mingled voices. Ginger's suit had no camera.

"It looks and feels through my gloves like black glass; it could still be the melted ice someone suggested. I can't scratch it with a glove claw. Labs, please."

"Already there, as you should have noticed," answered Goodell. "Analysis so far matches the other one; it's a methanol gel, basically. I'm still working on the polymers."

He would be, Belvew thought. Arthur, of all the group, was the most optimistic about finding prebiotic material on Titan, and the most expert on autocatalysis and similar phenomena presumably involved with the chemical evolution stage preceding actual life. He was also hoping desperately, his companions knew, to find a key piece of the biological jigsaw puzzle while he still lived, even if that piece failed to provide a cure for his particular ailment. He was as close to being a pure idealist as anyone in the group—a scientific Nathan Hale, though no one was tactless enough to make the comparison aloud.

The screen brought Belvew's attention back from this brief wandering. Ginger had started to rise from her squatting position, and was pausing on a rather grotesque show.

She had been slightly off balance as she straightened her knees, and reached vertical with her center of gravity a little outside the support area outlined by her feet. There is a normal human response to this situation, acquired usually during the first year or so after birth: one picks up the feet nearest the direction of tilt and moves it further in that direction to extend the support area, though not so far as to make reaction initiate a fall the other way. The woman started to do this, but her right foot refused to pick up. The couple resulting from pull on this one and Third Law push on the other tilted her even farther to her right. By the time she reached thirty degrees all eyes were on their screens, and at least three theories were being developed.

"You've melted yourself in!" cried Martucci. Inger, whose idea involved close contact between soles and surface plus Titan's high air pressure, said nothing but thought furiously. Goodell, already wondering how simple the chemistry for a thermotropic reaction could possibly be, called, "See whether it's pulling in around your boots, or if you're just

Harsh Mistress SFA

sinking!"

Ginger Xalco was moved to answer this. "Just sinking? I'm stuck, you idiot! What do I do?"

"Find out why," Arthur replied calmly from the safety of a seven hundred kilometer high orbit.

"Try to tilt and slide one boot at a time," proffered Inger. "Can anyone guess how much jet exhaust a suit will take?" asked Belvew. "I assume no one knows."

While the women tried unsuccessfully to implement Barn's suggestion, and then less enthusiastically to follow Goodell's instruction, Gene, already in his waldo suit, silently preflighted *Thera*. Xalco had filled the tanks conscientiously on the way down, and the landing had depleted them only a little; there was well over enough for a takeoff. Keeping careful watch on the gauges he fired up the plasma arcs and fed liquid to the pipes. Carefully checking the relative whereabouts of woman and factory, but not letting himself worry about a few labs, he raised thrust on the right jet enough to drag *Thera* in a curving trail—the tanks wouldn't let it simply pivot—until it was heading toward Ginger. He then equalized both sides and sent the machine dragging forward until it was only fifty meters from the still anchored suit. Rather than attempt another tight turn he went on past, leaving Ginger on his left and turning only slightly to the right, until the exhaust was streaming past her only three or four meters away.

"Better let me take it," the woman said at this point. "I can tell if it's too close, and the response will be quicker."

Gene made no argument, and relinquished control. Using waldo while standing up was more awkward than Ginger had expected, and for a few seconds she was almost tempted to let Belvew take over again; but she resisted the urge, recognizing the strength of her own arguments and possibly for other reasons.

The jet blast was now sweeping over part of the patch, behaving just as it had before; the tar, it that's what it was, was sinking or possibly vaporizing into a shallow groove along the track of the warm gas, while a dark cloud of smoke appeared above the affected region and swirled and billowed slowly away from *Thera*.

Ginger examined as closely as she could the slow widening of the trench, and very carefully increased thrust on the left pipe to swing the gas stream closer to her position. The higher power widened the stream as well as turning the jet, and she almost overdid it. The unspoken question in all minds was whether the removal of surface could be managed without cooking her suit. She finally stopped the turn by cutting back on the left unit and raising power in the other. Luckily this did not provide enough total thrust to move the aircraft farther away and complicate matters even farther.

"I still can't tell whether it's vaporizing, melting and sinking, or just crawling out of the way," she reported, her voice once more calm.

"Is it crawling over your boots?" asked Goodell. Xalco squatted once more.

"No," she replied after a moment. "It's more like melting in. I'm deeper than before, but the stuff isn't closing in around me. You know, this might work."

"Damn!" said Arthur with feeling. Not even Ginger criticized. All watched tensely while the trench widened toward her and finally reached the left boot. Here it seemed to stop, and after several impatient minutes she raised the thrust a few percent.

"Your tanks are getting a bit—" Gene didn't even try to finish the sentence. Ginger answered only by trying, hard, to

slide her boot toward the once more widening trench.

The material which had pressed up and outward like fairly stiff clay around the sole was vanishing; she squatted to watch closely, curiosity once again in the ascendant, as it blew away in a trail of smoke which she could clearly see forming from half a meter. She reported verbally to the others.

"Can you move your foot?" cried Belvew. "Your tanks!" She stood and pushed sideways again, and her left boot slid out into the exhaust stream, suddenly free.

She brought it next to the right one and pressed down hard; it had, after all, taken a while for her to 'stuck' earlier. She kept trying, shifting the position of the free boot every few seconds just in case, but the right one stayed firmly in place until the warm gas actually reached her armor and began to eddy around it. For several more seconds no one breathed, much less spoke; then the right foot came suddenly free, and Ginger made an unplanned but quite lengthy jump which took her off the smooth patch.

If the released breaths from the watchers had been free to leave the station, its orbit might have been changed measurably.

Ginger, safely on ordinary ground, did not make her way at once back to the jet. She picked up, labelled, and poached several dirt samples from points as close to the edge of the patch as she could move the stuff. She even made a point of working loose a specimen where soil and smoothness seemed to blend. Then, without haste, she returned to the aircraft and vanished from the screens.

"Don't bat the factory on takeoff!" Arthur cried, then, "Soory."

Ginger made no answer. A few seconds later *Thera* slid into the air, and a minute after that had reached ram speed with something under a hundred kilograms of mass in her tanks.

"There's a thunderhead at forty kilometers, two hundred degrees," Mana informed her.

"Right. Thanks. Is there anything I should do while I'm here, after I juice up? Or have I already earned a mission credit? I did pick up a lot of data."

Belvew wondered whether she would have thought of using the jet to free herself, but was far too polite to suggest this explicitly.

"How about splitting the credit?" he asked innocently.

END OF PART ONE
(To be continued Next Issue)



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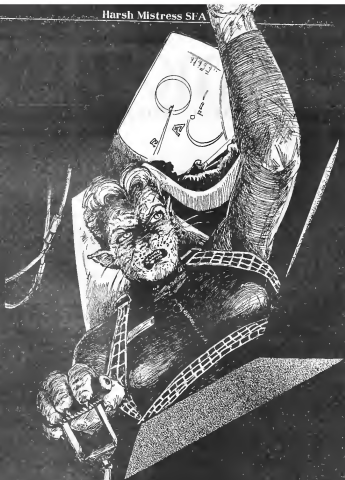
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Harsh Mistress SFA



"I fear I have more, Kees. If our business discussion is nearly complete, I would ask to approach you."

Kees trembled at Ian's words. Only the most personal and usually most tragic of messages required the messenger face to face and touching such other's shoulders. Conciliators believed they could sense truth passing between them.

"In service to the prior," asked Kees. Ian and Kees walked around the table and grabbed Ian's shoulders, unbothered but claws so pun. Ian did the same.

"Kees, I love you as my litter mate and your husband as my brother. We have lost him. Gattan is no more. He died in a surface flight accident in his private vehicle. A valve malfunctioned locking one of the engines and he crashed. No one else was hurt and no responsibility has been placed with maintenance. It was a freak failure."

As Ian spoke, Kees' claws dug into her shoulder flesh. Blood started to drip to the deck, yet Ian felt nothing. Gattan truly was his friend and eyes never lost their focus on Ian's, and he could see the pain there. Kees released her grip and lowered her head.

"Truth, brother Ian, I feel it in you. I must leave, honest be to you, Ian."

The incident played through Kees' mind every time she thought of Ian or Gattan—and always just as she awoke. She had been thinking of them often and this awakening was no different. She needed something solid to rip into. Her claws tickled her throat for revenge. She had been holding everything inside, playing the diplomat. After her session with Ya'bin, Gattan San clan wanted nothing more to do with the diplomat. Ian had hoped sleep would help, but the memories came and awoke her anger and frustration. Gattan was gone.

Ian was upset, herbroos were telling her what to do—and she had to listen.

Kees looked down and saw that

RED MOON OCCLUDED

by
E.J. Shumak
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were bleeding where she had been grasping the bulkhead. The claws, turning in on themselves when they could not find purchase on the duralloy plating at the hatchway, had punctured three pads. She swore softly and walked back into the head to soak the cuts. She put clotting powder, from the field medical kit, on the wounds and got the bleeding stopped.

All I need now is to be bleeding all over the place, thought Kees, as she reached for the communicator. It was laying on her rank belt, next to the computer terminal, where she had tossed it as she strapped for her shower.

It was now less than ten minutes to evening feed. She keyed up the bridge and Pommel had the comm. He advised her there had been no status change and all had remained quiet. She sat down at her terminal and punched in another Garrett traffic survey, this one for the last four hours. Again the computer answered with nothing significant. It was what she had expected.

Realizing she was still naked she went to her locker to select a fresh pair of trousers. She located another black pair, to match her mood, as well as the potentiality that combat black might soon be needed for the entire crew. She clipped on her rank belt and strode from her quarters heading for the lift.

Her mind returned to her meeting with the Vorlavin, Ya'Sun. Too many questions remained unanswered. It simply was unbelievable that the Sun clan ship, *Er'Tar*, was uninvolved. Nys pride merchant ships were being destroyed, and the *Er'Tar* always seemed to be nearby.

When she arrived at the ward room, she was relieved to find it empty. She hadn't wanted to eat with staff separated from crew tonight. She went back out, into the passageway, and headed for the galley.

The galley had enough space for five full complements of staff and crew. It's use by staff officers was optional and during times of stress, the staff usually avoided the ward room except for meetings, eating instead with the crew. Kees strongly approved of this practice.

Walking into the galley reminded Kees how hungry she was. She had to keep her hunter vision in check as her peripheral started to fade. She pulled a feeding tray from the dispenser and tossed it into the warmer. She had selected *hvari* (a large grass eater from her home planet), and a trouble portern at that. This was standard for someone coming off a string of jumps, as the body needed considerable replenishment after such a strain. Ten seconds later she pulled the tray from the warmer and carried it to the head of one of three long tables. The table could hold all ten crewmembers, seven were already seated now that the captain was there. That left only Nator, who had bridge duty, along with Perjes and Mnat still missing.

I sure hope they aren't pairing off, thought Kees, *once that starts up, we'll have a ship half full of paired mates with the rest left out. That's all this ship needs right now. Well, at least they're both staff.*

She was relieved when Mnat came in alone, followed two minutes later by Perjes -- Perjes looking as if he just woke up, and Mnat apparently refreshed and alert. It certainly didn't look like they just came from the same den.

Kees dug into her warm *hvari*, real stuff, not the synthetic. She wondered if they would be out long enough to use up ship stores and go on synthetic feed this time. Not that the synthetic stuff was bad, she had to admit it tasted the same, but somehow the texture was never quite right. It always left her with a strange feeling after feeding on it.

This was really good though. She had a rear quarter

section, honed out, almost nine pounds worth. She had to control herself to keep from ravaging her food. She considered getting a half pound of fish for desert and thought better of it. She wasn't getting any thinner, no matter how rough those jump strains were getting to be. *I'll be damned if I'll let out another pair of trousers,* she thought.

The table had been quiet during the feed, now the trays were going into disposals and the crew began to relax. Conversation was starting up now, with everyone leaning back with cups of fer (a hot broth drink with nutritional supplements added) and the whole crew was feeling pretty informal.

The conversation soon changed to that of Silfa, the home planet, and those on it. Most of the crew had just completed recent leave on Silfa and wanted to share news, now and old, about their respective sub-grade groups. Kees sat quietly listening and was soon lost in memory.

Kees was running across light brown grassland with twin moons rising overhead. Nornel and Emil, slightly yellow and green in hue, were both full and beautiful. Her mate Gatran was running beside her and she felt her muscles alternately bunching and stretching as she lost herself fully in the joy of an open run. There was prey here in the hills, but she wasn't even looking, much less chasing. She had a full belly and Gatran beside her. She needed nothing else. The moons had risen on a time that would never find her happier, nor more content.

Her leaves were few, far between, and too short. She truly relished her downworld time, but she never really got used to being out in the open. Too much time in space had ruined that. She still loved the feeling of freedom that only this kind of a run could give. When she was running like this, everything felt right with the world. She knew where she belonged, and why she worked a predator ship. Nothing could be more important than protecting the pride and this beautiful home world.

They stopped at a ridge overlooking a green lake. There were red and yellow flowers growing wild around it. They lay at the top of the ridge, Gatran putting his arm over her forequarters and holding her close. She purred and he nuzzled her right jawline with his forehead, purring himself. They lay there a long time, well after dark. When they finally started back to their den she was content and confident in her purpose, both here and in her work.

She came out of her thoughts just in time to hear her engineering officer.

"I got those panels double checked captain. They look as solid as brand new. Wouldn't even know we just ran a string of hard jumps on her."

"Thanks Tesh, I appreciate you getting to that so quickly. I'll feel better if we have to pull out fast. That's the kind of work that makes you a credit to our pride, and grows me the options I need. I want to thank all of you for the kind of performance you've all put in, under stress and without adequate rest. You are all a credit to your pride and I am honored to be your captain," said Kees, as she rose to leave.

There was a somewhat stunned silence in the Galley as everyone tried to figure what had brought forth the captain's feelings. It was not the norm for Kees to be so free with her compliments, even when they were well deserved. Kees knew the quality of her crew and expected only the best from them. It was very unusual for Kees to congratulate mere proficiency.

Kees started out of the galley as the crew called out in unison, "Hantres!"

Red Moon Occluded

TWO

Kees was straightening out her cabin's anteroom for the meeting when her comm beeped. She answered the call at her terminal.

"Captain here, go ahead."

Hathit, the second weapons officer spoke, "Captain, secure message here from station offices. It's from the stationmaster and marked for captain's eyes only. Came in over the shielded line."

"Send it down to this terminal."

"Huntress."

The terminal lit up.

**TO: CAPTAIN CONCOLORON
VESSEL NYS' RED MOON
FROM: STATIONMASTER YA'SUN**

**TOP PRIORITY
EXPEDITE**

Your welcome here has expired. Docking privileges for ALL Nys pride vessels are hereby revoked. You will be provided safe passage outsystem by Ra'Shon. This will be commenced ASAP. Please advise earliest possible outdock. Immediate outdock is requested.

Et'Tur will not be accompanying you - at any point. She was destroyed eighteen hundred hours this date, vicinity Lima point. No other information authorized for release. Advise receipt and intent to comply.

Kees punched up the bridge, "Sound general quarters - battle stations, we're pulling out. I want us off station power NOW. Hold docking position with docking collar RELEASED. Keep us nose to station in this slip, but I want us free to pull out without outdock clearance."

"Huntress," came the response from someone whose voice she didn't quite recognize, then a muffled "Damn" from somewhere off miles, just as Kees broke the connection.

She keyed up the stationmaster's office and sent the following message over the open communications channel. She knew the secure line would be gone momentarily.

**TO: STATIONMASTER YA'SUN
FROM: NYS' RED MOON/
KEES NYS COMMANDING**

Message received and understood.

Will outdock fifteen minutes.

Escort denied.

Will outsystem ASAP.

She re-keyed the bridge and was relieved to see that Mnaït had the comm. "We're pulling out. Undock and outsystem course in ten minutes. Plot and lay in that course yourself. They're trying to give us escort. I want us vectored for Lima point, short jumping to Fa'Top, then to Cordel point."

"Got it, captain, plotting it now."

That will give us damn near a month, objective, to see what the hell is going on, and whatever it is that furry bastard's not telling me, thought Kees as she stormed out of her cabin and heard the yowl of the battle station alert die out. With any luck, Sun clan will think we're trying to get right in

the middle of whatever it is that's going on out there. As she entered the bridge, she was pleased to see a full complement of personnel.

"Captain, I've advised crew to stand by for full acceleration outsystem and a jump series. Course is laid in and we're ready to move on your go," said Mnaït.

Kees knew how much she had asked of Mnaït and was once again impressed by her abilities. To plot and lay in a course, that complex, in the time she had, was superb work. With the added complication of trying to make it look like they were going somewhere they weren't, it was phenomenal. Kees knew Mnaït had it right, there was no need for anyone to check it over.

"Hold comm while I prepare a message," said Kees as she turned to her communications board. Bringing the communications computer to her screen, she keyed in the following message;

**TO: NYS PRIDE COUNCIL
FROM: NYS' RED MOON/
KEES NYS COMMANDING**

IN SERVICE TO THE PRIDE

Have been expelled Fa'Lac station with inference of exclusion from Vorlain space. Expulsion/exclusion addressed to ALL Nys pride vessels. Have as yet been unable to transmit warning. Will simul-transmit this message to all Nys pride vessels. Have been advised of destruction Vorlain ship Et'Tur, location Lima point. No further data obtained.

Request any and all data obtained by pride during jump time lag. Will query upon re-entry at believed safe location.

May the pride's hunt be fruitful.

Kees transferred the message to Htan's boards with instructions to simul-transmit, fully encoded, on both wide band frequency and light band FTL to Silfa.

"Captain, we've got an open band communication from Ra'Shon, advising us they are prepared and waiting our outdock. They request moderate acceleration to jump point and our jump coordinates," advised Htan.

"Tell them we'll be pulling out at a speed comfortable and moderate for a Nys pride predator ship, and we expect them behind us. Give 'em single jump coordinates for Lima point. That should get us an interesting response."

"Transmitting now, Captain."

"Mnaït, pull us out slow, turn us around and give us full emergency acceleration. Advise crew of same. Perjes, stay awake on that board, we may get real busy. Sun clan never had much use for us before—even less now I'd factor. Have Hathit monitor aft traffic."

"Already assigned, Huntress," replied Perjes.

"We're clear station, stand by for ship's gravity."

They were momentarily weightless as the ship broke from station, losing station induced gravity. Kees reflexively grabbed the arms of her acceleration couch, then, as ships gravity built up, she felt herself settle back into the seat. Suddenly she could barely move her muzzle, as the fusion engines kicked in and the acceleration couch absorbed her weight at full thrust.

When she was able to speak, she queried Perjes, "Weapons officer, status?"

"Proximity boards clear, Ra'Shon moving on intercept

Harsh Mistress SFA

course," replied Perjes.

"*Ra'Shen* advises to moderate speed and requests new jump coordinates. They advise access to that jump point is denied."

Kees heard Htan's voice over her communications implant and responded, "Tell 'em we're vectored out and we'll get them our new jump coordinates as soon as we can factor them."

"Done, hantress."

"Station is ordering redock. They say we violated ext protocol and they demand our immediate return," said Nator from the second communications post.

"Can *Ra'Shen* get us targeted at current acceleration and vector?" Kees asked Perjes.

"Not from their current position, they don't have the acceleration capabilities. I don't know what else is out there though. It is possible that most everything military went to Lima point. I don't show anything close enough for scan to determine ship type."

"Hold current course and acceleration," ordered Kees.

"Captain, *Ra'Shen* is only making a halfhearted attempt at pursuit. They're only at half acceleration," said Perjes. "They either don't want us real bad or they expect to get at us the other side of jump."

"Looks like they bought it then. I'd bet my tail they got a half fleet at Lima point checking out the *Er'Tar* debris. Wonder what they'll think when we don't show up for the party they're holding for us?" commented Kees.

The jump klaxon sounded its three quick chirps and Kees punched in allship comm.

"We're stringing two long ones with only course correction time in between. Be ready and stay strapped down jump in one minute," then turning to Mnsat she said, "You've got this one all the way to Cordel point. Put us at dead drift when we punch back in at Cordel."

"Hantress," was all Mnsat could reply. She knew it was a gesture of extreme trust that Kees would give her full comm under these circumstances.

Kees turned to Perjes, "Ears up. I'm expecting company."

Then everything was gone, while at the same time everything was still there, or here. It was impossible to explain, and each crewmember experienced the jump phenomenon differently. Each jump was always, at least in little ways, different. No one really knew what happened when the jump panels cycled, putting them into hyperspace. Somehow, they lost half a month in a few short moments, while they struggled with consciousness and felt alternately as if time flew by, and then stood still. It took, seemingly, a half day for Mnsat to reach the retros, as they came screaming through Fa'Tep. Fa'Tep was simply a jump point in Vorlatin space, named after the star located there. A star with no inhabited planets and no space station, only a navigation beacon and a few sensors. Just a star with enough gravity pull to get them back into realspace.

Red Moon had her ID blanked and was putting out Vorlatin in-system hauler ID transmissions. They had recorded them at Fa'Lac, a strictly illegal action and against several provisions of the Manifest. Then again, the way they planned to blow through this system violated a lot more than mere provisions of the Manifest. It violated things like common sense and the idea of having some care for personal safety.

The bridge came alive with a flurry of activity. Alarms went off, telling them what they were doing was crazy, and the navigation beacon was telling their navigation

computer to slow down. Everyone was busy resetting overrides and manual controls to prevent the navigation system from obeying normal navigational procedures.

Mnsat was first to speak, "Captain, we're right in the hole, center of the window. We can jump again in three minutes at present acceleration."

"Excellent, Mnsat. Perjes, we got any visitors?"

"Nothing within scan range and no trails. The place is cold captain."

"OK, Mnsat, hold course and jump at will."

"We're goin' back in," replied Mnsat. Suddenly Kees wasn't sure if they just went through Fa'Tep, or were still en route. Then, just as suddenly, they were coming out of hyperspace again, dropping back down into reality. It was now a full month after Kees left Fa'Lac, yet she had lost only a few moments. Except for the trip through Fa'Tep, the flight had been nearly instantaneous.

"Perjes, are we clear?" asked Kees.

"Looks like it. Screens are clean and so trails."

"Shutting down to stored power," advised Mnsat.

"What did we drag with us going through Fa'Tep that way?" asked Kees.

"Not enough to strain us, and we'll be coasting right along with what we did bring. No hazard to us. No station here and hopefully no ships either," replied Hatan. She was monitoring second weapons console and had responsibility for secondary scan.

"Damn lucky we didn't hole ourselves or blow a panel, flying through Fa'Tep that way," then turning to her communications board, Kees punched up engineering and asked Tesh, "What's our status down there, how did we hold up?" Tesh replied over Kees' comm implant, "We're solid, captain, one hundred percent status. Didn't go back up on one single system."

Kees punched in allship comm, "Pride of Nys. We are at Cordel point. We're going to sit it out here for awhile, catch our breath and find out what exactly is going on. All personnel will remain on alert status with standard deep space shift rotation. It looks like we're alone out here; hope it stays that way for awhile."

They were deep in Sipean space, a solid jump from the Vorlatin held areas, headed in the general direction of home space. The Sipeans were an insectoid race, and there was no reason to expect problems from them. Relations had been good between them and their Concoctoon neighbors.

Kees was starting to come off her adrenaline, and trying to figure how long they would need to hole up here. The ship was running on stored power, with the fusion engines shut down, active sensors and transmitters blanked out. They would rely on passive scan only, and they would use that sparingly. It would be enough to assure them they were quite alone.

"Captain, firing fusion engines to dump speed, we're out pretty far," said Mnsat.

"Understood," said Kees and then over allship, "Brace for deceleration."

The ship lurched hard as the retros fired, slowing the ship from its near light speed. In a short time, they were at the edge of the gravity well formed by the dwarf star that had pulled them from hyperspace. The fusion engines left an obvious trail, but once that faded, they would look nearly like any other rock, as long as nobody came too close.

"Nothing local coming in, the only long range stuff I'm getting is Sipean," said Htan.

They wouldn't be able to pick up any FTL.

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transmissions until they were fully powered up, with all scan operational. Right now they would have to wait for any news from home.

"Fusion engines down, captain. We're at dead drift."

"Understood," replied Kees, only half listening, with her mind busy trying to sort out their situation.

There had never been open hostilities between Concoloron and Vorlaten ships before. That made their ejection from a Vorlaten station all the more ominous. Personal disagreements had always been settled personally, usually on the docks, stationside. Nys Pride was the largest space faring pride and the Vorlatins most likely considered them the closest thing to a planetary government that the Concolorons had. That being a fallacy wouldn't change their current position.

Kees turned to Perjes, "Turn weapons scan over to Hathit. I want you rested. If we need you later, we're gonna' need you real bad."

"Huntest," replied the weapons officer as he shifted control of the weapons comp to Hathit's boards. No argument, he knew she was right. There was no one else on board that could handle a weapons comp the way he could. It had saved them before and things weren't getting any quieter.

He got up slowly, making a conscious effort to keep his ears up. He was joined by Esh and Fomel as the captain's voice came over allship.

"Pride of Nys, all personnel will take deep space watch duties and rotation. Those off now will rest immediately so as to turn relief shift ASAP. May our Pride's hunt be fruitful."

The PTL hyperspace jump process was rough on the Concoloron system. You didn't feel like you've been up long, but the stresses on the body were tremendous. When you were able to calm yourself, shut down the hunter vision that came with stress or threat, and finally get to sleep, you slept like the dead and woke up starving. Jump strings were especially hard. Standard procedures called for a week break between jumps. Treble rations were the norm after a hyperspace jump. Your fur shed and your claws grew out. Perhaps the mind lost time during the jump state, the body certainly didn't.

Kees opened her nearest console and pulled out a half quart container, downing the liquid without even stopping to breathe. The stuff tasted horrible, but she was thirsty and it had most of what her body had just lost in jump, not the energy nor the sleep, but most everything else her body needed right now.

She had been last to take the post-jump fluids and she caught concerned glances from Hathit and Mnait. Their concern moved her. She didn't think she would have noticed who had taken their jump fluids, without conscious effort to watch.

I'm going to have to get a medical officer on board, she thought. If we're going to be under this kind of pressure, the crew won't be able to hold up without someone looking after them.

I sure as hell don't have the instincts for the job.

She got up and left the bridge. If she expected the rest of the crew to obey her rest order, she'd have to set an example. She had held off rest period with first group last time, and almost missed getting any rest. She wouldn't risk it under current conditions.

She went straight to her den and up onto the sleeping shelf. She hadn't eaten and her stomach was keeping her awake. She couldn't shake the hunter vision that, this time, could be from her banger, stress, or just plain fear. She rolled over and willed herself to sleep. In her current condition, it

actually worked.

As she drifted off she found herself dreaming of Silla. This time it was not a relaxing romp in the moonlit fields that awaited her, but a brightly lit meeting room full of elder pride members, the ruling class of Nys Pride. She was standing before the Pride council and she was the subject of the discussion. She wasn't able to comprehend what was being said, but she knew they were discussing her recent actions and her fitness for command.

She tried to speak to them, but it was as if she wasn't there. Somewhere, in her still partially conscious mind, she knew her dream was not so far removed from reality. All she need do is mess up the next few command decisions, and her dream would become a nightmare reality.

THREE

Kees entered the galley and found it empty. She had expected as much, since everyone on first watch would have already eaten, and second watch was starting their current duty shift. She selected a *gorw* haunch and tossed it into the warming unit. A moment later, it was done. She carried it to the nearest table, picking up a hot cup of *fet* on the way. The haunch was a treble portion, weighing almost ten pounds, but only moments later it was totally devoured. She tossed the remains into a disposal and, picking up a fresh cup of *fet*, and leaned against the dispenser.

Her thoughts wandered to Ian Nys. Could he have been involved in the Er'Tar attack? It sure was one hell of a coincidence. Kees couldn't recall a Vorlaten ship being lost in the last several years, not since the Garrett Conflicts. To lose that ship now didn't make Ian look real innocent. She didn't think Ian would involve himself in that style of revenge. It would have required several other ships, all actively assisting, to prevent identification of the attacker. Ian was a real loner, even more so than herself, never wanting to be tied to another ship. Kees was sure the Vorlatins would never accept the Er'Tar destruction as coincidental. She didn't even believe that, but she couldn't figure who stood to gain from a Vorlaten-Concoloron feud.

The destruction of a Vorlaten puma class warship was no easy matter, especially doing so undetected. The attack on *Great Promise* had shown some real planning and superior hardware. The thought of a ship and captain that could do the same to a Vorlaten military vessel had her real worried. Taking a trading vessel by surprise was one thing, but the Er'Tar was a good ship with an experienced captain and crew. They would have been on alert too, considering what had been going on. All that should have made a successful attack impossible, for any ship she knew of. If a group or fleet had been responsible, both Er'Tar and *Great Promise* would have had time to call for help. You can only expect so many ships to be missed on scan, or effectively hidden. Every way she turned she found a blockage at the trail.

The Vorlatins were huge hairy creatures, massing well over six hundred pounds. They fed on vegetable matter primarily, only occasionally eating meat—and they sold their loyalties. Both these habits confused and disgusted her, making it even harder to deal with these creatures. Vorlatins served as security and military forces for other species. Concolorons would never hire a creature that would sell loyalty, nor would a Concoloron seek aid outside it's own species.

Kees had no data on the Er'Tar destruction, and the little she had on *Great Promise* only told her that whatever hit

that ship was fast and extremely well armed. The outcome of a meeting between that ship and *Red Moon* weighed heavily on her. Her mind remained cluttered as she tossed her now empty cup of *fei* into the disposal and walked out of the galley. She stopped at the wardrobe, checking to see if anyone was there. It was empty as well and she continued on to the lift, heading for the bridge.

As she entered the bridge, Kees saw Hathit and Esh. After a momentary ears down sign of submission, both returned to their screens. Kees walked over to Esh and, leaning over her at the comp terminal, told her.

"Plot three courses out of here and have them ready to lay in if we need them. One through Garrett space to Togan space and two direct to Concoloron space."

"Working, Huntress."

"Hathit, prepare FTL radio for a short burst transmission to Silfa. I don't want to be located by anyone outside the Pride. They will be waiting for a message from us and should be able to reply almost immediately," said Kees.

"Right, Captain," replied Hathit.

Turning to her own console, she sat down and keyed in the following message;

**TO: NYS PRIDE COUNCIL
FROM: PREDATOR SHIP RED MOON
KEES NYS COMMANDING**

*Please update.
Our situation stable.
Will await your response.*

Then, turning to Hathit, she said, "To your board, send it now."

"Transmitting, Captain," replied Hathit. After what seemed only a few moments, Hathit spoke again, "Priority message coming in, Captain."

"Record and then blank us back down," ordered Kees. "Systems blanked Captain. Message is on your board," replied Hathit.

On Kees' screen, the response took shape.

**TO: RED MOON
KEES NYS COMMANDING
FROM: NYS PRIDE HIGH COUNCIL**

*Meet courier ship at coded coordinates 17 19 04 37
21463 18ASAP
END*

They're sure being careful, thought Kees as she punched in the coordinates, sending them to Esh's board.

"Set a course immediately, looks like one, maybe two jumps from here. They figured us pretty damn close." Kees, knowing the code system by memory, had their destination already determined.

"Working, captain," Esh spoke as she worked at deciphering the coordinates. "Looks like we're gonna be jumping back past Lima point. It's deep in the Sipcan corridor, above Vorlatin space. We'll end up well within jump range of Lima point; wonderful, just what we need. At least we can make her in one jump, a big one but within capabilities. We'll jump right over the Vorlatin-Sipcan corner."

Kees turned to her comm board, punching in allship. Two short electronic chirps were heard throughout the ship,

followed by the Captain's voice.

"Pride of Nya. We will be jumping to a meet point deep in Sipcan space. In order to reach our destination, we will be passing over the Vorlatin-Sipcan corner and Lima point. I don't have to remind you, that leaves us in danger of having our jump trail detected. We will be at battle stations from the time of initial jump. I don't know if there will be much help at our destination. I only know we are meeting a courier. I anticipate reaching jump speed in ten minutes. We will be coming off scan blank and dead drift momentarily. All personnel to their stations immediately. May the Pride's hunt be fruitful."

Kees picked up her ears with a conscious effort and, turning to Esh and Hathit said, "You've both got five minutes for yourselves, once your relief arrives. Use it wisely, but be here at your stations in five minutes."

Kees never gave them a chance to respond and, turning back to the comm board, keyed up engineering, "Tesh, any reason to expect a problem with a full distance jump?"

"No, Captain, we're one hundred percent here. Everything held, all systems and back-ups have been checked," replied Tesh, the engineering officer.

"Okay, once you get your supplies, strap in and stay there monitoring."

"All set up, Captain. Scan and engines are ready when you put them back on line."

"Excellent."

Msnit had arrived and relieved Esh. She was checking over Esh's course calculations and said, "Everything is right on Captain, looks good."

"Activate fusion engines now. Acceleration to begin in thirty seconds - mark." Then over allship, Kees said, "Pride of Nys, prepare for moderate acceleration in twenty seconds."

The ship lurched as Perjes relieved Hathit. He advised, "All clear on scan. Nothing waiting out there beyond passive range. Checking targeting systems now."

Esh had returned to the bridge and was checking and refilling each station's jump supplies.

She sure didn't take any time for herself, thought Kees, as Esh finished her checks with the captain's station, then sat down at second navigator's post.

Hathit returned and took second weapons comp. She would handle whatever Perjes throw her way, along with any overload. With Perjes running first weapons comp, there had yet to be anything thrown her way during a fire fight, real or simulated, and the computer had never sensed a need to overload anything off Perjes' boards. Perjes was the best there was. The only real combat experience Hathit ever had was in Perjes' absence. Otherwise, she just sat there, monitoring the systems automatic functions that kept the weapons collar supplied and functioning, and watched scan.

Htan plopped down into place at the communications station, and Nator, a security officer with communications background, sat monitoring the auxiliary communications station. Pernel was strapped down in the acceleration couch near the lift and had the hatch secured. Kees looked around, seeing everyone in place and strapped herself down. Then she opened a comm line to engineering, to check on the remaining crewmembers.

"Engineering status?" asked Kees.

"Clear, Captain. Personnel accounted for and secured. I'm monitoring from bridge screens," replied Tesh.

That took care of the only two crewmembers not on the bridge during battle stations, engineering officer Tesh and a

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security officer. They were ready and would be monitoring from their location. This would free anyone on the bridge from keeping the engineering section advised of routine happenings.

All the boards were lit up, with each crewmember running and re-running their checks. Kees and Pernel were the only ones sitting quietly. Mnait had the comm, and knew Kees was watching her closely.

"Bring engines to full acceleration," ordered Kees.

"Hustress," replied Mnait, and then over allship, "All hands stand by for full acceleration, followed by jump sequence."

"You have the comm, Mnait," said Kees. "But it will be under my direction."

Then there was no more conversation, as breath was pressed from each of their lungs by the steadily increasing acceleration forces. Every set of ears was flat against its owner's head fur. There was total concentration as they raced for the jump point. Everyone on the bridge was fighting hunter vision, trying to concentrate and stay calm. The jump warning chirped three times, the sound barely penetrating their tightly folded ears. Each was deeply entrenched in their own personal stalk, trying to anticipate the prey's next move, hoping to spring neither too early, nor too late. Each desperately wanting to believe they were not springing into the arms of the predator, while missing the prey.

FOUR

As they dropped out of hyperspace, Kees could feel the pulses emanating from the jump panels. They seemed to be in time with her stomach's knotting and unknotting. She was still only partially conscious when Perjes called out: "We're not alone. Got a ship just outside visual, unknown origin, she's not outpacing. Mass shows Jynx to puma class. Hathit, I want exclusive monitor on that vessel."

"Hold speed, Mnait," ordered Kees. "Whatever it is sure as hell knows we're here."

Hitan's ears went flat. "Another ship just jumped into sector. ID output— it's *Red Sky*, Captain! To our port, further out from unidentified vessel."

"Hitan, output proper ID immediately. I don't want *Ian* any more confused than we are. Put us on coded comm line. Let's see if we can't corner this little bastard. Mnait, fall braking on retros, bring the speed down. Follow weapons comp positioning requirements. Perjes, you got the intruder identified yet?"

"That's negative, Captain. He's outbound vectored but at a steady speed. We'll come up within range for visual and full scan in two minutes. Will target at that point, but we'll need to hold speed for another minute and a half."

"Following weapons officer's request, Captain," said Mnait. "Retros off."

Kees downed her jump fluids in one attempt, nearly losing them all over the bridge. Half choking she replied, "Affirmative, you have the comm."

"Captain, light beam transmission from *Red Sky*, you want it?" asked Hitan.

"Put it on audio and switch transmission to my mike," said Kees.

Over the bridge speakers boomed *Ian*'s unmistakable voice, "*Red Moon*, what the hell's goin' on? That one of your friend's Kees? Let's get some data over here!"

"Negative on the friend, *Red Sky*. Ship is unidentified. Will have him on close scan momentarily," replied Kees.

Kees closed the connection with *Red Sky* and, turning to the second communications post said, "Nator, handle further communications with *Red Sky*. I want Hitan free."

"Transferring to Nator's board," said Hitan.

"Acknowledged, Hustress," replied Nator.

"Stand by for auto-evasive, we are being targeted now," warned Hathit.

"Request authorization for targeting and return fire on unidentified vessel," said Perjes.

"Lock into targeting computer only. No response except on my go," said Kees. "No one's going to say we fired first!"

Hathit called out, "Positive scan match on ship. Computer comparison shows puma class Vorlatin design vessel. Trails show she's been here for some time. Looks to be coming about and her targeting scan is locked on our ship. *Red Sky* is out of range. Still no ID transmission from Vorlatin ship."

"Mnait, activate all record stations. I want this down solid," ordered Kees.

"Ship locked onto targeting computers, request firing go code, Captain," said Perjes.

Then, before Kees could respond, *Red Moon* rocked hard to topside. The acceleration couch restraining webbing was tested by ten Concoloron bodies being pulled out of their seats at several times normal gravity. The webbing contracted, cutting off any chance of speech, as each crewmembers' lungs was compressed tightly.

The screens on the bridge exploded with light as whole systems went to backup, and a few to third bypass circuitry. The sounds of compressed metal were mixed with sounds of air escaping into hard vacuum. The ship seemed to moan, as structural braces were stressed, and pieces of loose metal screamed as they scraped down the length of the hull. The impact activated the computer's evade program, overriding Mnait's navigation control. The ship was coming about hard, and targeting computers kept the Vorlatin ship locked in.

Kees was first to catch her breath. Turning to Perjes she said, "Perjes, you've got your go code, take him out. Esh, damage control to your board. All stations report system failures to second navigation post."

Perjes was deep in concentration at his board, ears flat back, and teeth bared in what could never be described as a snarl. He spoke as he manipulated the weapons comp.

"Targeting, Captain."

"Locked in."

"Firing."

"Strike effective — she's open."

Mnait called out, "Stand by for inbound roll. I have comm secured from auto-evasive. We're going in after her!"

Nator received a transmission, over the tight beam from *Red Sky*.

"*Red Moon* — request status. We observed first strike and are recording. Suggest you do the same from your position for triangulation. Will be in position to assist in two minutes.

Advice if you are sound and tight."

Perjes switched on his communications interface, overriding Nator.

"*Red Sky*, this is *Red Moon*'s weapons officer. Request you be into our navcomp. We appear sound and tight. We are executing inbound roll. Request you flank us for pick up or cut off of hostile vessel."

Esh called out her damage report.

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"Docking collar and observation lounge are hit. Whole first level gone to vacuum. First level sealed off and holding. Second level seals are activated and holding. Emergency core lift seal holding at level one. Core and core lift secure and operable. They hit us dead forward, topside. Docking corridor is gone. All other systems solid. Scan intact and weapons collar untouched. Engineering advises we are at full strength, no maneuverability nor defense capability losses."

Ian's voice again came over the bridge speakers. "Red Moon, we are locked into your navcomp. Commencing inward roll to your flank. Aggressor ship coming into our targeting range."

"Captain, they haven't fired on Red Sky. Could they not have noticed him?" asked Hathit.

Hathit's query went unanswered, as Perjes reported, "We have an aft strike on the Vorlatin vessel. Confirmed by scan. At least thirty percent panel damage. The Vorlatins aren't going far now. Retargeting."

"Let's get her in a holding pattern with Red Sky. Htan, see if you can raise the Vorlatin. Use wide band, inter-Manifest frequency."

"Huntress," replied Htan.

Hathit called out;

"Red Sky just took a hit."

"Looks minor - grazing strike."

"Vorlatin ship advises to prepare our graves - no other response."

"Vorlatin swinging starboard, picking up speed fast, she'll be out of range momentarily."

The ship lurched hard to port, crewmembers momentarily losing consciousness. The ship vibrated and moaned while the computers stressed the frame while simultaneously saving the ship from a killing blow.

Perjes spoke, "Retargeting, moving back within range. She's playing with us."

"Auto-evasive failers, forward stabilizer gone, am securing to full manual nav," said Mnat.

"Wonderful"

"Move her in hard, I need speed, can't keep her locked," said Perjes. Then switching to Red Sky's frequency, "We are off computer guidance, secure from our navcomp, stay on the Vorlatins port side."

"Affirmative, Red Moon, will comply."

Hathit broke in:

"Captain, Red Sky in range of Vorlatin."

"Double strike."

"On target."

"The Vorlatin is split right down the middle."

"The whole ship is open to vacuum!"

Perjes spoke up, "Targeting gone. I show insufficient mass to activate targeting comp. Only sub-ship size debris. Clearing weapons comp."

He leaned back from the weapons console, his ears coming up for the first time since they completed jump.

"Roll cancelled, retros on. Slowing approach to aggressor ship," said Mnat.

The ship lurched, slowing hard, and coming about to a more direct path with the debris that, just a few moments ago, was the Vorlatin ship.

"Bastard's crazy, I wanted those damn Vorlatins alive. We're gonna learn a whole lot from that pile of garbage out there," then, hooking a claw into the ship to ship comm board, "Ian, what the hell are you doing?"

Red Sky's communications officer responded, "Aggressor ship disabled, moving in for ID and recovery / rescue operations."

"There's nothing big enough left to hold a damn Vorlatin! Give me your Captain, this is Kees Nys!"

"Sorry, Captain, Ian Nys is occupied with ID and rescue operations."

Kees swore softly and turned to her intelligence officer, "Pomel, suit up and take Htan and Perjes with you. See what's left of that ship, especially ID and comp data. Perjes, Hathit has your boards. You answer to Pomel while off ship."

"Huntress," replied Perjes as the three largest males left for the shuttle bays.

"Fish, any further damage?" asked Kees.

"Negative, Huntress, status as previously recorded."

"Fine," said Kees, as she keyed up engineering.

"Status?"

Tesh responded, "We're solid down here, Captain. Tarn is suiting up in preparation for repair and rescue."

"As soon as we are stabilized at dead drift get out there and make sure we can go hyperdrive. I would prefer us not coming apart."

"Huntress."

Mnat called out, "We're coming up on debris zone. Appears to have minimal residual velocity. Slowing to match speed."

"Hold us a couple miles out and match drift. I think we're gonna be here awhile," said Kees. Then, over allship, "All personnel, secure from battle stations, maintain general alert status."

"Sure doesn't look like much left out there," said Mnat.

"I'm going to get some explanation out of him, and on more than this one incident. He's in too deep on this. We've got just too damn many coincidences," said Kees.

"He's the courier ship I suppose?" asked Mnat.

"Damn well better be. There sure isn't any other excuse for him to show up here," replied Kees.

There was a short electronic chirp as Pomel's voice came over the communicator, "Ready to disengage shuttle, Captain, on your go."

Kees opened the shuttle comm line, "Whenever you think it looks good. We'll be stabilizing with the debris. No quick moves expected from this end."

"May the Pride's hunt be fruitful, am disengaging now, Huntress," said Pomel.

Kees turned and addressed the bridge crew, "Hathit, you take communications to your boards. Fish and Nator, you're off shift, get some food and rest. I want everybody as fresh as possible."

Fish and Nator rose from their stations, each showing the pressures of the last few hours. (Or weeks, depending on one's perspective.)

Kees punched up the shuttle channel, "Pomel, how does it look out there? You close enough to see anything?"

"Red Sky's shuttle is already at the debris. Looks to be two or three suited up and on tethers from the ship. I've got markings on the forward hull, recording for translation. They look to be Sun class. Htan's staying with the ship. Perjes and I are just about to tether out now."

"Punch me into your suit radios. I want to be kept advised. We'll be keeping everything on record from this end," said Kees.

"Acknowledged, Huntress."

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Kees leaned back and turned towards Hathut, "Keep those weapons hot. I want to see those safety lights flashing. We still don't know what the hell's going on."

Hathut double and triple checked her boards, verifying that all the automatic warning and proximity functions of the weapons comp were activated. The computer, once in assault mode, would target any and all ships within range. That included *Red Sky* and *Red Sky's* shuttle, along with any debris large enough to register as ship size. Only *Red Moon's* own shuttle was blanked.

A claw, carelessly stuck into the open fire slots, would destroy any or all the other vessels. Even more disconcerting, was the fact that Hathut fully expected *Red Sky's* weapons console to be similarly activated, and Hathut had no confidence as the *Red Sky* weapons officer. Ian was even known to operate weapons comp from his command chair, so the boards were definitely in the hands of a less experienced officer.

Perjes' suit radio used the shuttle repeater and was as clear as any inship communication. "Captain, very little left of forward sections. I've panned the whole debris radius and am recording from suit vantage. It's totally blown to vacuum, right up the middle, no chance of any survivors. Pretty sloppy out here, especially close to the central core. *Red Sky's* personnel are working on the bridge computer, apparently trying to pull what's left of the file banks, and there's one crewmember working on the weapons collar. Looks like Ian is with him. I don't want to interfere with their work. With your approval we'll go aft and try engineering, along with the main computer decks."

"Proceed as you will, commander, your discretion," answered Kees.

"Looks as if the forward portion of the computer area may be intact. We'll be entering now, suit transmission off, unless called."

Kees watched Pernel and Perjes through their suit cameras. They were entering a semi-circular area of the wrecked ship. The forward sections of the Vorlatin vessel were completely gone, and there was an 'uncured' appearance to the remainder of the ship. It left an impression of the ship being blown from the inside out. The core and core lift had been ripped from the center of the ship, leaving all levels exposed to vacuum. That kind of marksmanship was never accidental. *Red Sky's* weapons officer had known exactly what he was doing, and did it damn well.

Although the computers did all the tracking and aiming, it was up to the weapons officer to anticipate the other ship's evasive movements, and compensate for them. Programming in the deviations from expected norms, anticipating those changes, and when those changes would be implemented by the other ship's personnel, could not be done effectively by computer. The computer could come close, but not close enough to win a fire fight. Kees wondered if Ian had been running weapons comp. He had been known to do so, right from the command chair.

The Vorlatin ship had attempted just this type of attack on *Red Moon*. It had been unsuccessful, due mainly to Mnait's navigational skills in positioning the ship prior to engagement, and pulling navcomp in and out of auto-evasive. That made the difference between losing the docking collar and first level, or tipping open the whole core. *Red Sky*, by first opening up the core and following that direct hit with a second strike, guaranteed there would be little left of the Vorlatin ship.

Pernel's suit camera showed a fifteen foot square

section hanging away from the main portion of the decimated ship. The camera scanned rows of computer crystal banks, most torn open, spilling their contents out into the void. Towards what was once the aft section of that levels computer deck, a small area appeared mainly intact.

Pernel and Perjes got quickly to work with small laser torches, cutting away the supporting bulkheads. If they could get a substantial section of unharmed memory back to *Red Moon*, many of their questions could well be answered.

Perjes pulled out a cargo tether and attached it to the now free floating section of computer memory storage. He looped the lightweight cord through an eyebolt he had carefully welded to the computer housing, and attached the tether to one of the cargo lines.

"Shuttle, reel in cargo line four."

"Working, commander," answered Htan.

Kees' view showed the cut out portion of computer receding rapidly towards the shuttle. It soon became small and unrecognizable.

"Not enough small debris to indicate much in the way of cargo," said Pernel.

"Most of this stuff appears structural. She was really stripped for action," agreed Perjes.

They moved back along the core, level by level, following the computer storage decks of the ship. There was total destruction here, the second strike had detonated the fusion engines with the resulting backblast tearing whole sections to pieces. Only a partial framework, with accompanying rubble, remained.

"It's pretty hot back here, fusion core must have come open. We're down to five minutes exposure time at current levels," said Perjes.

Kees opened the comm link, "Don't put yourselves in any unnecessary danger. Get what you can and get out. You can check colder areas once you clear those sections."

"Understood, Hmtress."

As Pernel and Perjes approached the breached fusion engine's housing, a glow was evident. Anything this close to the fusion core would be too dangerous to firm aboard anyway. They started back toward the area *Red Sky* personnel were working in.

"Switching suit frequency," said Pernel "*Red Sky* shuttle crew, may we assist?"

"We've got it under control, everything worthwhile is already back at the shuttle. We require no assistance," replied Ian.

"Understood, Captain, switching off *Pride* frequency," then switching back to *Red Moon's* frequency, "Catch that, Captain?"

"Double check engineering, that portion furthest from the core break. If you can't do it safely, just return to shuttle and pull back in."

"Acknowledged, Hmtress."

Hathut brought Kees' thoughts back to the bridge, Captain, Tesh requesting start on damage survey on forward hull."

"How's our drift stability, Mnait?" asked Kees.

"We're solid, 'Captain, all the rough stuff is confined to immediate debris area, radiation levels are acceptable. We have matched drift at two and a quarter miles."

"Hathut, tell him to go ahead with it."

"Acknowledged, Hmtress."

Kees sat considering their situation. They needed repairs badly and would be unable to dock normally until a

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complete rebuild of the forward sections was completed. Hopefully, they were hyperspace worthy, otherwise there would be a long wait for a carrier ship to grapple to, then an even longer trip back to Silfa system. Being dragged home, like so much dead weight was not an attractive thought for Kees. In the interim, they were maneuverable enough, and strong enough, to stand alone. Kees hoped that would be unnecessary. The message Ian was carrying from Nys Pride worried Kees. She needed Ian's help and cooperation, the only question was whether or not Ian had accepted that fact. Perhaps that was why Pride council sent Ian as courier, either work together and straighten this out, or die trying. The Pride council would get two *gorras* with one pounce.

Kees turned back to the monitor showing Pernel's suit camera. Pernel and Porjes were circling around, toward the engineering command area, avoiding the hotter portions near the engineering support areas. Pernel glanced back towards the *Red Sky* shuttle. *Red Sky* personnel were loading salvage into the shuttle holds, preparing to return to their ship. He activated the suit radio.

"Captain, you there?"

"Affirmative, commander."

"*Red Sky's* shuttle is pulling back. We're going to check engineering command if we can get around the core break, then return as well. We're still getting heavy radiation levels, the debris is pretty hot."

"Fine, commander, I've been observing."

Kees turned towards the communications board and punched up *Red Sky*.

Red Sky's first officer, Varn, answered, "Go ahead *Red Moon*."

"This is Kees Nys, commanding *Red Moon*. Request you forward dock at our aft docking port. We cannot forward dock due to damage. This would be to facilitate a meeting with your captain. We will hold present position, relative to debris. I have one shuttle to re dock and personnel on the hull making repairs, so use due caution."

"Affirmative on request, Captain, we will commence docking as soon as both shuttles are secured. Will advise time frame once determined. We are honored by your personal attention to this matter. May the Pnde's hunt be fruitful."

"*Red Moon* acknowledges."

"*Red Sky* out."

Hathit spoke up, "I have Pernel on the suit frequency for you Captain."

"Got it," said Kees as she glanced at the monitor. Pernel was still out on the debris and his suit camera showed what appeared to be a complete section of undamaged computer storage. Kees opened the comm link, "I'm on frequency commander, what've you got?"

"Looks like the entire engineering control section, all solid. Porjes is wrapping it up now. Last one of these we recovered from a Vorlatin military ship had an auxiliary bridge log in it. We didn't open it. Gave it to the Vorlatins untouched. They were real appreciative. This may have the entire ship's log in it."

"Can you get into it once you bring it aboard?"

"I think so. I've gotten real familiar with their programs and codes. Hean has a full rating on our computers and a security rating on Vorlatin and Togan units. We'll have to tow it in though, too damn big to fit in the shuttle."

"Fine, take your time with it. Now that we have it let's not mess it up."

"We'll treat her like a new kit, Captain, no need to

worry 'bout that."

"We'll be docking with *Red Sky* as soon as shuttles are secured. Let's have that aboard and under wraps right away. I don't want questions asked before I have answers."

"Understood, Captain, we're returning to shuttle, ready to tow in now," said Pernel.

Kees asked Mnaat, "Have you got a status report on the engineering team?"

"Affirmative, Captain, they're on level one securing the core shaft seals. You want me to check on them?"

"No, let them do their job. They don't need me worrying after them."

"Captain, we have *Red Sky's* shuttle, Captain Ian Nys requesting to speak with you," said Hathit.

"Put him on the speakers."

Ian's voice boomed over the bridge audio system.

"Kees, you wanted to speak with me? Go ahead."

"We'll handle it in private Ian, I've made arrangements through your first for docking."

"Of course, Kees. My first had instructions to offer a similar arrangement, but yours is acceptable. How bad are you hurt?"

"We'll make it. We're sealing off any vulnerable areas now. We're maneuverable and weapons are up. Most likely FTL tight, we'll know more soon."

"Excellent, Kees. I am looking forward to seeing you again, it has been too long. May I offer you the hospitality of my cabs for our meeting?"

"That's acceptable, Hunter. You have a message for me from Pnde council?"

"Hard copy no less. Sealed and Pride Authority marked. I assume it reads similarly to the one I was presented with. I fear you will not be pleased, Kees."

"Let's save the details for the meeting Ian."

"As you wish, Huntress. I remain at your service."

"I assume that means I have access to what you pulled off that ship?"

"Of course, of course Kees, full access. As soon as I know what we have, you will have the data. I see your shuttle isn't going home empty handed."

No, and you'll have all our data, just as soon as we get it straightened out."

"We must work closely on this Kees, lest we forget how serious this matter is."

"I would propose a computer shunt, once we have or respective units fully on line with the added data."

"Agreed, Kees. I'll have my computer officer on it immediately. Do you have a computer officer, or do I have my officer contact your intelligence officer?"

"Our intelligence commander, Pernel, will be fine."

"In the mean time, may I suggest radio silence? I have little concern over further hostilities but prefer to be somewhat overcautious."

"We will comply. As soon as my shuttle gets in we'll shut down to drift. I am going to keep full scan operational."

"Yes, that is wise. However it seems redundant for both of us to do so. Upon your approval, we will shut down to passive, trusting to your competence."

"Acceptable, Hunter. I anticipate our reunion. May the Pnde's hunt be fruitful."

"And may the Pride find no blockage at its trail."

Kees cleared the ship to ship channel and, turning to Hathit said, "You know, I just can't seem to stay mad at that junatic. He does have the Pride's best interest at heart, he just

Red Moon Occluded

gets too damn excited. Believe it or not, he was just trying desperately to smooth things over with me just now. He just can't stand to sound soft in front of his crew. In a lot of ways I feel sorry for him."

"Don't you get soft on us now, Captain. Remember how this whole mess got started," said Mnait.

"It's only that, after what we just went through with a Vorlatin ship, I can appreciate Ian's theory as founded in fact. Not that I believe Vorlatin were responsible, but I do strongly suspect Vorlatin involvement. I can't explain this constant Vorlatin connection any other way."

"Somebody did just blow the *Er'Tar* all to hell," responded Mnait. "I would think that would give the Vorlatins something to be peeved about."

"True, but they shouldn't be any more certain of what's going on than we are. You don't see any Concoloron ships attacking Vorlatins, without even announcing themselves."

"They're different though, Captain. They sell their loyalties—they eat treason. How can you figure a mind like that?"

Hathit interrupted, "Captain, I just got an ID on our Vorlatin aggressor. Film back from Pornel shows Sun clan markings and ID numbers register back to the *El'Ram*."

"I wouldn't be surprised if the Vorlatins were waiting here for Ian. They had to be here in the middle of nowhere for some reason," said Kees.

"Captain, could be that the Vorlatins overjumped *Red Sky*, then we show up from a different vector, with Vorlatin output, and confuse all hell out of them," offered Mnait.

"There are about a million possibilities, but most of them don't make Ian look real innocent. We might get enough from that computer for me to determine if Ian's being straight with me. He's the one with the message and information for us. I'll let him tell me what's going on first, then let him know if the Vorlatin data verifies his story. I think he'll be straight with us, at least I hope so."

"Captain, *Red Sky's* shuttle is redocked. They're shut up tight. They advise docking with us in twenty minutes. Pornel is redocking now, cargo already secured," said Hathit.

"Now we wait for Tesh and Tam to seal us up, or give us the bad news. If Pornel and Htan can get into that Vorlatin computer before I meet with Ian, we'll be on ground solid enough to pounce from."

"Engineering reports sealing proceeding well. With no unexpected problems, Tesh says we'll be FTL safe in two hours," reported Hathit.

"Excellent, advise me immediately of any problems. You can clear those weapon boards but keep scan active. Any sign of trouble, anything at all, you aim those boards."

"Hunress," acknowledged Hathit.

"Mnait, radio *Red Sky* and tell them I'll be there in twenty-four hours for the meeting with their captain," said Kees as she rose from the command chair.

"Acknowledged, Hunress."

Kees, walking towards the lift, added in a low and menacing voice, "There will be no question as to who leads this hunt."

FIVE

Kees punched an allship at the aft docking port. "Attention all personnel: I will be off ship, onboard *Red Sky*.

Until further notice, Mnait has command of the ship. Mnait, acknowledge."

Mnait replied over the comm, "Acknowledged, Hunress, may the Pride's bust be fruitful."

Kees entered the short passageway joining the two ships. She went alone, thereby acknowledging the equal status of the two captains and her trust of Ian and his crew. As she reached the *Red Sky* side of the corridor, she was approached by a four crewmember honor guard. To have provided her less would have been an insult, more would have inferred distrust. Kees recognized the squad leader as Varn, Ian's first officer.

"We meet again, Captain. I am honored to serve you. Ian has advised me that the ship is at your disposal and that you are to be taken wherever you desire."

"Your Captain's quarters will be quite sufficient at this point Varn, but the gesture is appreciated."

"As you wish, Captain."

Kees followed Varn's lead with the three remaining *Red Sky* crewmembers following close behind. Ian's ship was almost a twin of her own, albeit slightly newer. Being onboard another predator ship always gave her a strange feeling, almost as if her own ship had somehow changed. The differences could be felt, if not truly seen.

As they reached Ian's cabin, Varn stepped briskly aside the hatchway and activated the comm unit. "Captain, Hunress Kees Nya has arrived and requests entrance."

Ian responded immediately, "Then by all means let her enter. We are at the Pride's business!"

The hatch cycled open and Kees stepped through. Ian's cabin was considerably more ornate than Kees', although similar in layout. There were only so many ways to arrange a properly equipped captain's quarters. Ian had definitely made this his own. Only the best furnishings, along with a ransom in precious metals, were in evidence as Kees sat at the conference table.

"You have done well, Ian."

"One must keep appearances, Kees, even in this business. You on the other hand, have a reputation which precludes such displays."

"I appreciate good taste none the less, my friend."

"Ah yes, it is truly good to see you. I have missed our conversations."

"I do not miss this place. The last time I was here we spoke of Gastron. I have missed you, yet now you bring me more news."

"I promise, only the Pride's business this time—no surprises," replied Ian.

Ian, I must apologize for my attitude and actions of recent past. Apparently you care more for the safety of *Red Moon* and her crew than does her inadequate captain. For worse, this same foolish captain took it upon herself to allow her displeasure with your superior command strategy to show before your first officer and communications officer. I am in your debt and my crew owes its very existence to your quick thinking."

"Kees, there must be something behind this. We have never fully agreed on the turn in the path, but we are always headed to the betterment of the Pride. My assist was quick and effective, but I understood your concerns at the time. I shared your thoughts about questioning the murdering Vorlatins, but would not risk you to the same fate as your uncle. I am honored that you wear the Pride robes that Apollo presented you with and I would ask only that you fully explain the reason for your statements. I hope we share more than Pride, Kees. I

count you one of my true friends."

"I am honored, Ian. I will then speak freely as is due this great trust you have given me. We have recovered a copy of the bridge log secured in the engineering computer banks we salvaged from the *Er'Ram*. It shows that the *Er'Ram* had over jumped you and was waiting here to destroy you. When we arrived from the opposite vector, with Vorlatin output, they were sufficiently confused to hold fire. This would not have saved us as they have developed a new particle beam weapon with 35% greater range. We took a hit while still well out of normal range. All this is being shunted into your computers as we speak, along with detailed plans for the weapon."

"Well this is wonderful, Kees, why do you apologize? You have done a fine job."

"Do not toy with me, Ian, must I spell it out? You know I did not approve of your destruction of *Er'Ram*, yet had you not done so my ship may well have been destroyed."

"As I said, Kees, I count us as more than fellow Pride members. I expect no thanks for assisting another Pride ship."

"I apologize not for needing your assistance, but for disdaining your methods, especially in front of your crew. I also regret risking my crew and owe my ship's safety to you."

"Consider the debt paid, Kees. We are too deeply into this to worry about such things. We must truly count on each other. What is this about *Er'Ram*, why was he tailing me?"

"There is a young Sun Pride faction which desires to start hostilities with our Pride. They see it as a way to gain power within their own species. We are to be the scapemorphs. Great Promise was indeed destroyed by the *Er'Tar*. You have been right from the beginning."

"At least that bastard is paid. Did you discover how he was destroyed?"

"Unfortunately that too is a lie. The *Er'Tar* still exists. Appolo was only partially avenged."

"Before you continue much further, I must stop you and show you my surprise. We too recovered a worthwhile piece of *Er'Ram*," Ian turned to the console and keyed in a weapons collar view of his ship. Attached to the topside turret ring was a particle beam weapon Kees had only seen in schematic. Red Sky had a Vorlatin particle beam gun salvaged from *Er'Ram*!

"I see you were not surprised by my description of the new Vorlatin weapon."

"It'll be a much safer trip home, for both of us."

"I gather that's where we're headed?"

"Truth, Kees, I present you with Council orders."

Ian handed over the sealed packet and Kees opened it carefully.

It was sealed with Pride colices and made by hand. It was supposed to look impressive and intimidating, and the desired effect was accomplished very well indeed.

**TO: NYS' RED MOON
KEES NYS COMMANDING
FROM: NYS PRIDE COUNCIL**

IN SERVICE TO THE PRIDE

*Return Silfa system fastest safe route.
Accompany Red Sky direct to Council Hall to answer Vorlatin
complaint. No other activity to be commenced or continued.*

"You know more about this than what this order tells me?"

"The Sun Clan has filed charges against both of us for Manifest violations. I assume however that your Vorlatin computer records will clear us and form the basis for a cross complaint."

"Truly, Ian. You have access to all my tapes. Make your own records in case one of us doesn't make it all the way home."

"We will not speak of death, Kees. We must work as one now, to avenge Appolo. The path before us is long and hard."

"Gatran understood why I was here. Now I understand you. Our trail is no longer blocked and I can now see the curves you tried to point out to me so many times. Thank you."

Ian only bowed, he's ears lowered in deference.

Kees left the cabin with her honor guard trailing close behind. All were silent as Kees burst through the docking port to her own ship. She punched in a ship as she entered the passageway leading to the lift.

"Captain is onboard and off shift. Mnsat retains command. Mnsat acknowledge."

Mnsat answered from the bridge. She could hear the clarity and determination in her captain's voice and knew better than to inquire.

"Acknowledged, Harbress."

Kees would take these few hours for herself, she suspected they would be the last for a very long time.



"An invaluable reference."

Allen Steele, *Orbital Decay*, *Labyrinth of Night*

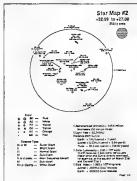
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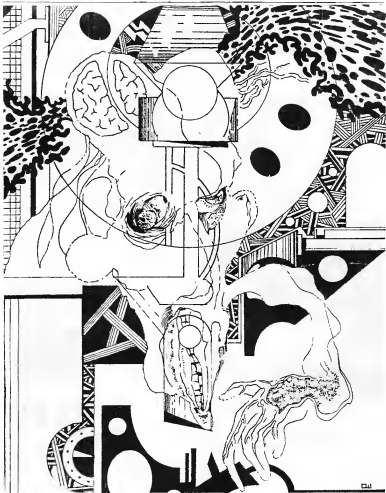
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Jack The Martian

by

Don D'Amassa

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I suppose it's cynical to consider the appearance of a serial killer on Mars evidence that we have successfully transplanted human culture across the gap between worlds. Admittedly, the psychologists responsible never suggested that they were creating a new civilization from scratch, but they certainly intended to apply strict controls to our closed society. Personally, I attribute this to the narrow minded focus of their specialty. If they had consulted those of us who have studied human history, they might have adopted less grandiose plans from the outset. The higher the aspiration, the greater the disappointment.

Nor is it surprising that the killings began in Bradbury, the largest of a dozen domed cities, supporting and supported by twice that many smaller communities, plus countless observation posts, weather stations, research projects, and other outposts of the human invasion scattered across the barren but fiercely beautiful surface of Mars. With a population of approximately twenty thousand, Bradbury would have been a small town back on Earth, but here it was a major metropolis, the cultural, commercial, and scientific center of the universe for a quarter million colonists.

It was also the hunting ground for a deranged killer.

The first victim's body was still warm when I reached the scene. Bob Winston, one of my sector supervisors, waited at the foot of the access way ladder while I climbed down.

"What've we got, Bob?"

"A mess, Ted. Over this way." We were in one of the maintenance corridors beneath the northeast runway, not far from the locks between domes six and seven. Judging by the mesh of cables that ran along the low ceiling, this particular corridor provided access to the energy linkage from the core tap.

A few meters further on, a cowering body lay face down in a pool of blood.

"His name's Nguyen Chu, second generation Martian, lived in Bradbury all his life except for a few months on temporary assignment in Barscom."

Two technicians were crouched over his body, while a third carefully videotaped the entire procedure.

"How'd it happen?"

Winston shrugged. "Throat cut with a sharp instrument, nature unknown. Judging by the angle of the wound, I'd say the assailant came up from behind, reached over the right shoulder, and struck before the victim even knew he was in danger. No signs of a struggle. The autopsy might tell us something more."

I glanced around, trying to look professionally calm despite the churning in my stomach. Crime, even murder, wasn't unknown on Mars, of course, but it was rarely premeditated.

"I don't see any cameras. Who found the body?"

Winston refused to meet my eyes; not embarrassment, just unease. "No one. The killer called it in."

"Do we have him?"

"No, but we have his name." Winston appeared to be uncomfortable and waited to be prompted.

"All right. What's his name?"

"He says he's Jack. Jack the Martian."

The colonization of Mars had been a strange blend of pragmatism and visionary romanticism. It had taken over a century before the first few settlements were essentially self supporting, and the capital outlay had been so great, it would take at least that long again just to repay the principal, let alone the accumulated interest. There were few accountants on the red planet; our fiscal policies gave them nightmares.

At the same time, the creation of enclosed, environmentally balanced ecosystems separated from Earth by a gap of time, space, and attitude was perhaps the most ambitious engineering project ever undertaken by the human race, and many of the most brilliant technical people on Earth had voluntarily emigrated in order to be a part of it. The Bureau of Psychology was supposed to smooth over the contradictions and conflicts so the two strains of personality interacted productively, and at least to date they had done so with reasonable success.

I'm ninth generation Martian, though educated on Earth and Luna, trained in administration and historical analysis. After graduation, I accepted a position with Security here in Bradbury because I believed it would be a relatively undemanding job and allow me time for my life's work, a comprehensive history of the colonization project. To my dismay, I discovered a latent talent for dealing with bureaucracy, and was now the youngest person ever to serve as Chief of Security.

Back on Earth, that would be Chief of Police. We had no "police" on Mars. The psych people decided that particular word had connotations which would not be helpful to the social climate, and "security" sounds so much more reassuring. Perhaps I was contaminated by my five years offworld, but to me this was just symptomatic of their tendency to soften language, disguise the raw edges of existence; a linguistic head in the sand divorcing us from reality. But then historians have always known the importance of a specific turn of phrase, so perhaps I'm overly sensitive.

I was off shift when the second murder took place. Anne and I were sharing a bottle of Martian Chianti fresh from the winery in Wells, trying to decide whether or not to renew our marriage contract. It was an amicable discussion; the two year term that was about to expire had gone smoothly and pleasantly. We were friends, expected to remain so, even intimately, but neither of us was entirely reconciled to making the compromises necessary to live together successfully as a couple.

The blinking code on my wristcom indicated a priority call and I touched the appropriate icon.

Harsh Mistress SFA

"Ted, this is Carol Chen. We've had another murder." She paused. "It's just like the last one." Policy was not to broadcast details even though the department wavelength was supposedly secure.

"Where?"

"Between rows 346 and 347, Farm 14. Bob's already at the scene with his team."

"All right, I'll join him there."

The victim this time was Joyce Djihwa, a seventh generation Martian employed as an agricultural assistant in Farm 14. She'd been working a shift of seedbed maintenance, unaccompanied, and from the evidence available we were able to reconstruct the sequence of events directly preceding her death. At one end of the aisle between rows 346 and 347 was an open access to the irrigation trench four meters below. The fast flowing waters washed down to the recyclers, carrying organic debris that fell or was thrown in by staff members trimming and weeding the gardens.

Her assailant had approached from the rear, used one hand to grab the victim's hair and force her head down long enough to draw some unidentified sharp instrument across her throat. Djihwa's blood had sprayed across the ground and made long, dark streaks down the containment wall. Security had been notified by an anonymous and untraceable call from a public comlink near the exit to Dome 15 within a few moments of the attack.

Bob Winston didn't greet me this time, just stood watching the technicians work, obviously uncomfortable. "Find anything?" I averted my eyes. Djihwa had been an attractive woman, but now she lacked all humanity.

He shook his head. "Same as the other one."

"Might be coincidence," I suggested without conviction.

Winston shook his head. "Same message as last time, claims to be a REAL Martian. I'd say we have a nut, the victims chosen at random."

That remained unproven, but even though we did considerable cross referencing, our subsequent investigation turned up no usable link between Djihwa and Nguyen Cha, the first to die. Of course, in a community as small as Bradbury, there were inevitably some connections. They lived in different neighborhoods, but they were both active squashball fans, along with one out of every three adults in the city. Djihwa had originally worked in systems maintenance, though not in the same sector as Cha, and switched to agriculture a Martian year or more before he emigrated from Dusthowl to Bradbury. There was no evidence that they had ever met.

We explored the tenuous connections as far as we could, but without real hope of finding anything. And we downplayed the two incidents in the media, not even acknowledging that the deaths were related, although carefully not denying the possibility.

Things didn't start to get out of hand until the third attack.

Connie Santiago was a popular woman in Bradbury. She'd been elected to four consecutive terms on the city planning board, winning by a larger plurality than anyone in living memory, and had only been returned to private life because she refused to run for a fifth. Santiago was attacked and killed during daylight, working in the postage stamp-sized garden she maintained behind her small private quarters.

Needless to say, Security was under pressure from all sides. Both co-mayors had managed to forget their joint veto of my proposal to increase the number of security cameras, although to be fair, this was unlikely to have saved Santiago. Private property could not be kept under surveillance without

the owner's approval. Message volume was so great we were forced to filter all incoming calls through an AI discriminator to separate legitimate ones from public complaints and I was twice accosted in public places by irate citizens demanding to know why I hadn't brought the killer to justice.

To make things worse, someone in security leaked details we had hoped to keep to ourselves. Not only did the newsmen report that the murderer had called us following each kill, they also knew the ward part, that the killer claimed to be a "real" Martian who would continue to kill until the human invaders were gone.

Bradbury, like all Martian cities, is a closed community. Not that there isn't free trade with the rest of the domes, there's no such thing as nationalism or anything like that on Mars. The Bureau of Psychology is very careful to neutralize anything that might contribute to regionalism. Even squashball teams are prohibited from having more than two players from any single city.

But since we can't breathe the Martian atmosphere, every breach in the perimeter of our cities is monitored at all times. You can't enter or leave without identifying yourself unless you're smuggled in as cargo. There have been occasional fugitives on Mars, but it's almost impossible to vanish here. There are too many ways to trace a concealed human: air exchange rates, protein consumption, DNA tracking, pedestrian character recognition programs, and so on.

Following Santiago's death, I received a grudging emergency appropriation to lease additional surveillance equipment from other cities, and authority to commandeer non-essential monitoring equipment from the private sector as well. We very quickly increased our coverage of public areas from ten percent to approximately thirty-five, but the effect was even greater since we didn't need to cover heavily travelled rampways, public meeting places, the main commercial district, and other unlikely preying grounds.

It wasn't enough to save the life of Reinhardt Wanshofsky, a fourteen year old butchered on the landing of an old catwalk used as a shortcut between home and the gymnasium, but we had installed permanent traces on every public comlink in Bradbury and a strategically placed team caught sight of the killer vaulting over the rampway guardrail. The team leader alertly posted her people to cover every exit and called for help.

I came through the airlock from Dome 4 just as they were preparing to go in after him. The fugitive had spotted the two security people sent to intercept and backtracked, then descended further into the bowels of Bradbury through the maintenance tunnels. When I heard that, I ordered the dome sealed off completely, even though that set off the emergency sirens and created considerable panic.

Even so, it appeared that we had lost him. We swept the area systematically with small, heavily armed teams, checking every tunnel, compartment, connector, and subway as we went. It's a bewildering world down below street level; Bradbury is the oldest permanent settlement on Mars, and each new vision of what the city should evolve into was built squarely on top of the old. But cubic volume had always been at a premium and there was little wasted space, few places to hide and all of them obvious. Or at least, that's what we thought.

But we couldn't find our killer.

I ordered a second sweep, convinced that we'd overlooked something, and my intuition proved right. Night was just

falling outside when Winston reported they'd found a supposedly sealed hatchway which wasn't-- it had been tampered with. The bad news was that it was a direct conduit into one of the adjacent domes, bypassing the supposedly air tight dome seal. The good news was that it led into Farm 2.

Although Bradbury looks anything but symmetrical from overhead, there is actually a pattern to its development. There is a central core of linked domes which house commerce, industry, entertainment, and government services. Additional domes along the southern periphery are primarily residential, those along the north agricultural and scientific. Farm 2 was one of the oldest and largest of the northside domes, but it was also one of the very few that had only a single link to the rest of the city. In other words, it was a dead end. And a sparsely populated one to boot.

Since our quarry could not have returned to the main city while the seal was in place, we moved our operation to the Farm 2 airlock area. There was no certain way to know how many people were legitimately inside the agricultural dome, but night shift had started and there wasn't likely to be more than a skeleton crew.

We evacuated the staff systematically, screening each individual in case the killer was one of their number. Fortunately for us, no one had wanted to work alone since Djbwa's death, so we had little difficulty clearing everyone assigned to Farm 2 for the shift. Then we sent in the search teams.

It was only a matter of time. Farm 2 is the largest of the agricultural habitats, but it was laid out to be easily maintained. We flushed the killer less than halfway through the sweep and vectored the other teams to intercept every possible escape route. As chance would have it, I was with the squad of five who saw the end from closest at hand.

Our "Martian" headed almost directly to the north side of the dome, where the irrigation system rushed through an artificial streambed into the jaws of the recyclers. When a furtive figure emerged from a cluster of ferns only a few meters from our position, we drew our flechette guns, the heaviest weaponry allowed inside a dome. Without acknowledging our shouted orders to surrender, the killer ran across the aisle and climbed the sandcrete abutment above the canal.

I'm not exactly certain what happened next. Another squad burst into sight further along the perimeter and turned in our direction. The killer, still undisturbable despite the artificial lighting, seemed to hesitate and then, so quickly that we all froze, stunned, was gone. I rushed to the scene and scrambled up onto the abutment, stared down just in time to see what might have been a single flailing arm disappear under the thrashing jaws of the nearest bank of recyclers.

Officially, it was listed as death by mischance, although it might possibly have been suicide. Nor did we ever learn the identity of Mars' first serial killer. Despite having the most closely monitored population in human history, we were unable to discover, even indirectly, the name of the person we chased that night.

It took a while to accept that situation. There are close to a quarter million people on Mars, after all. But we accounted for every one of the twenty thousand currently listed as resident in Bradbury; no one was missing. As much as we would like to remain confident about the security system, it had somehow been breached.

So we expanded our search to every installation on Mars, and quickly eliminated all but a few dozen people, mostly

prospectors who hadn't bothered to maintain radio contact. By the end of the year, there were only three names left, a party of scientists believed lost in the Great Canyon region. Their bodies were found a few months later.

There were theories of course. The least practical was a stowaway from Earth. The most popular, despite denials from Data Management, was that some hacker had found a way to excise himself or herself from the system so completely that no trace of identity remained behind. There were even some who believed that the murderer had been an unrecorded birth, sheltered by parents for some arcane reason, grown to maturity without the social conditioning that maintains the stability of our fragile culture.

I have only recently begun to suspect the truth.

Despite my disinclination toward a career in administration, I was pressured into remaining as Chief of Security even after my term expired; submission to social pressure is a key part of our psychosocial conditioning. Then a seat on the Bradbury City Council, appointment to the planetwide Development Board, and so on. In short, I was not able to return to my love of history until my retirement from public service just last year.

Gilwight and Kubetsawa's definitive history of our colony preempted my original plan to produce an equivalent work, and I became committed to a new project, essentially my personal memoirs. The work was rewarding and went quite rapidly until I reached the year of the killings.

The Security records were quite complete. I reread the site reports, the autopsies, my own logs, and replayed the newsnet coverage. Even after a gap of more than half a lifetime, those events seemed real, distinct, hard edged, still vaguely unsettling. What I discovered next was more startling.

Despite my skepticism about the efficacy of many policies enacted by the Bureau of Psychology, they indisputably maintained a meticulous set of records of human activity, in mass terms. Many of these had been restricted even from the Chief of Security until the Freedom of Data Act a few years earlier, so it was with some curiosity that I downloaded and began to examine some of the files from that period. I was expecting too find a sharp increase in mental disturbances during the period directly following the Jack the Martian killings. What I found was exactly the opposite.

Over the course of the two years immediately preceding those unfortunate events, the incidence of neuroses and psychoses had been on a sharp upward curve, so sharp in fact that I detected serious concern expressed with mounting anxiety in the archival notes. Ten days prior to the first murder, the Bureau's Board of Governors was considering declaring a Psychological Emergency and taking direct control of colony affairs under the now defunct Cultural Emergency Code.

The trend began to reverse itself after Nguyen Chu died, declined slightly further when Joyce Djbwa was slaughtered, and dropped dramatically with the death of Connie Santiago. Reinhardt Warschovsky's demise directly preceded a reduction to acceptable levels.

I thought about that for some time, read a number of scholarly studies examining the phenomenon, all of which concluded basically that while the initial increase in mental unrest was almost certainly a kind of planetary cabin fever, no one really understood why the disorder reversed itself. Several files made reference to the Jack the Martian killings as a symptom of the problem, but none suggested what I now suspect is the real explanation.

I don't think Jack the Martian ever really existed. I think he was a mass delusion, an artifact of the minds of all of us here on Mars, a device by which we dissipated a growing, unrecognized resistance to psychological control. But a delusion so intense that it could literally interact with our environment, interact powerfully enough to be seen, heard, and to take four human lives.

And if I'm right, what form will our next mass hallucination take? Are the increasingly frequent reports of movement in the Martian deserts significant? Are we truly the inhabitants of Mars, or are we in the process of creating them?



Take a look at the writers whose work has appeared in **Dead of Night Magazine:**



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Mars!

SF Magazine.

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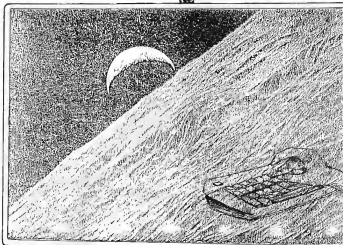
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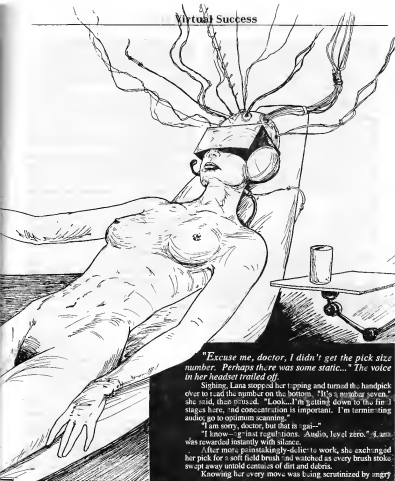
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MARS!



VIRTUAL SUCCESS

BY Larry Miles and Brian D. Gairdner
Illustrations ©1993 by Timothy A. Ballou



"Excuse me, doctor, I didn't get the pick size number. Perhaps there was some static..." The voice in her headset trailed off.

Sighing, Lana stopped her tapping and turned the handpick over to read the number on the bottom. "It's a number seven," she said, then paused. "Look...I'm getting down to the final stages here, and concentration is important. I'm terminating audio; go to optimum scanning."

"I am sorry, doctor, but that is ngai--"

"I know--g-last regulations. Audio, level zero." Lana was rewarded instantly with silence.

After more painstakingly-delicate work, she exchanged her pick for a soft field brush and watched as every brush stroke swept away untold centuries of dirt and debris.

Knowing her every move was being scrutinized by angry

Harsh Mistress SFA

she set the artifact on the rubber pad she had laid down as a precaution. She clenched her gloved left hand and pointed it at the artifact while using her other hand to press a small button on her belt—two knuckle nozzles opened, and a concentrated blast of air cleared away the last of the fine, black lunar dust.

"Audio, level four. Base Op, thank you for your cooperation. I am sure you can see for yourselves what we have uncovered," ignoring the angry squawks from her helmet radio, Dr. Lana Witton smiled. Her "City-Dump" theory had paid off. While the rest of the crew were at the main dig, she had opted to work this smaller, less-glamorous field. She mined it with the sure knowledge that—be it the remains of a long-abandoned alien outpost, or a prehistoric dig on Earth—if you found the dump, you would discover a treasure trove of history and knowledge. Again tuning out Base Operations, Lana abandoned her working crouch and rose stiffly to her feet. Closing her eyes and reaching for the stars, she groaned loudly and stretched until her aching back cracked in welcome relief. Clumsily shaking her numb legs, she opened her eyes and stared into the face of Mother Earth.

Lana could usually find a few moments to stand quietly and enjoy the magnificent view of her home world. But not today. Tapping her field brush against the silvery leg of her surface-survival suit, she looked at the prize that rested at her feet.

Although the round crystal surface was scratched and pitted, the shape was unmistakable—a helmet, slightly larger by human standards; but nevertheless, an alien spacer's headgear, complete down to the faded symbols still partially legible as its cracked visor.

A proud smile crept across Lana's face. Other than the menhitsu structure behind her, the helmet she had uncovered was the first intact alien artifact of the expedition.

After dropping a bright-red marker beacon beside the helmet, Lana sat on the dregde of her dune buggy and looked toward the main work area three kilometers away. She couldn't help but compare her small, neatly-pepped-out dig to the circus at the main project. Amidst a dozen hastily-constructed enviro-pods beneath an outcrop of ancient lunar rock, the partially-exposed crystal structure stood under the glare of eight banks of flood lamps.

Three years after its discovery, the mysterious edifice still clung stubbornly to its secrets, revealing almost nothing, remaining an impregnable puzzle. Man, using all his tools—from the intricately sophisticated to the brutally powerful—had been unable to penetrate the structure. Until today, the team's only success had been in chipping away the lava rock that had flowed around the giant crystal structure some age. But all that had changed with the news of this morning's dramatic discovery.

As the first field crew routinely began the daily task of clearing more of the moon rock, a thin dark line was uncovered at the ground line of the dig. All work came to an abrupt halt while the senior archaeologists crawled around with chisels and picks.

The excitement grew as orders were given to set up the sonic pulsar. Even before a final laser blast cleared away a stubborn slith of gray rock, the pulsar went to work. Moments later, through all the cheers, the word was out: the long-hoped-for entranceway into the crystal fortress had been uncovered.

Lana had been in the ritual of eating up and chocking supplies when she heard the news, with as much excitement, initially, as any of the team, she had elbowed her way in for a fast head look. Then, after noting that the doorway was going

to be a large one, she shrugged her shoulders and proceeded to her dig. It looked like it would be days before entry was achieved, but her project was going to bear fruit this very day.

With everyone whooping it up, Lana had quickly lost patience with the racket in her helmet and blatantly, against LunEx procedure, shut down her audio-link. Hours had gone by and her only contact had been with Base Op—and even that had been sporadic.

Gone now was the feverish chatter of earlier in the day, replaced by the normal hum of archaeological communications. As a veteran field worker, Lana had known it was only a matter of time before LunEx would step in and cool the enthusiasm with a "Dead slow—Proceed with extreme Caution" command.

Noticing extra fielders at the main dig, Lana closed her eyes to avoid vertigo and spoke into her helmet. "Visual, magnify to the tenth power."

She waited for her visor to click twice before she opened her eyes. It was as if she were in the middle of the dig action. At a glance, she saw that the extra personnel weren't working as fielders, but as a makeshift camera crew. Lana chuckled; it wouldn't be like hudget-minded LunEx not to take advantage of the situation. She was sure the latest news had already been beam-blasted back to Earth.

Lana was almost finished loading her dune buggy when something at the corner of her visor caught her attention. Someone was watching her. Again! Looking up near the top of the crystal fortress, she saw a solitary figure. Not wanting to lose him, she chanced a bout of nausea and, with her eyes open, said, "Visual, magnify...twelfth power." The visor clicked, and Lana's eyes swam. When they settled, she could make out every detail of the lone observer.

RAWLINGS, stencilled in red across the left chest and the front of the helmet. Rawlings again—standing away from the crowd...watching. Even though she was a few kilometers away, Lana knew the figure was staring back at her.

"Base Op, this is Dr. Witton...still in sector 3A-09. I would like a two-man retrieval team out here to pick up my marked specimen. Also, could you give me access to the duty roster?"

The Lunar landscape shimmered and went out of focus. Caught unawares, Lana started to check her monitors for malfunctions; then she realized...No! Not now!

Knowing she was less than thirty seconds from SLF termination, Lana again tried to fix Rawlings in her visor screen. For a moment she thought she might have lost him, if indeed it was a "him." But no—there he was, making his way down the rocky slope. As if he were aware that it was his turn to be scrutinized, he stepped in mid-step and looked right back at her. Just before termination, Lana saw the mysterious figure raise an arm and, with his gloved hand, give her a wagging thumbs up sign, followed by a jaunty wave...

"Rawlings..." Laura murmured as she came out of her simulated life fantasy. She stretched deeper into her recliner and waited the few minutes it would take her mind to readjust to reality. When the nausea had almost subsided, she reached back, peeled away the patch of Dermoskyn that covered the nape of her neck, and removed the neural jack—one of the most radical neural jacks produced by GenTapp Construct.

Shaking her head at the memory of Rawlings, Laura De Witte looked at her flatscreen. Another near-flawless performance. Seventy more minutes of production time and her latest simulation, "ALIEN FORTRESS ON LUNA," would

be in the bag. If her project's leading character, DR. Lana Witton, was as well received in this fantasy as in her debut adventure simulation, Laura's future would be looking good. Now if the people in GenTapp Program Security were doing their jobs, they should have a lead on the intruder who had hacked into her fantasy.

Looking at the high stats again, Laura got the feeling it was no ordinary chopper who had invaded her project. There hadn't been the slightest disruptive ripple in any of her overlays. No, this was no ordinary Tom. Smooth and mysterious...yes, but ordinary...no way!

Blinking suddenly, Laura looked around her. She had been so wrapped up in the fantasy creation that she only now realized that the work room was almost empty. Usually, "The Pit" was a hub of activity with more than forty fantasy writers trying to keep up with the demand for good-quality simulated lives. Now, other than the small knot of writers at the adult-entertainment workstations, the room was deserted.

One look at the control panel told the story. Not only was it well past shift down, but the outdoor environmental motor was in the bright reds again. "Shit," Laura cursed aloud. If the air gets any worse, she thought, I either sleep in the emergency dorm downstairs or use a knife to cut my way home. She logged into security and reported the program breach before closing her workstation. Then, when the surveillance camera swung the other way, she scooped her implant and tossed it into her x-ray-proof quilt-pak.

On her way to the lockers, Laura glanced at the porn boys and sniffed the sweet smell of kiffa. One of them smiled and held up a tubular glass pipe. Still slightly dazed from the SLF, Laura slipped with, "Thanna no...gonna home."

She had barely passed by when she heard their laughter. Fuckers! Laugh at her EastSide peddle that, would they? Well, she would show them, she would show them all. She might not have a fancy education, but her writing was better, and she wasn't sitting up half the night, stoned on industrial slugs, writing cheap porno fantasies. Sure, she was going home to EastSide, but that wouldn't always be the case...

Laura was still fuming when she slammed her locker door. She rushed to the exit elevator, her poncho swishing with every step. She had no sooner stepped into the GenTapp lobby, when, through the large electro-charged glassless doors, she saw a transp pulling up to its second stop.

Her rubber boots made a heavy, dull sound as she ran to the final security checkpoint. As she stuck her left hand into the ID box, she winked at the larger of two yellow-uniformed security men.

"Night now, cha's. See you morn." Their matching tattooed left ears reminded Laura that she was not the only EastSider working at the tapp.

"Yepo, marn, coulda gets tamptank ride home, if want..."

"Nay-ob, thank. Big boy show tranman the light now, so as knows'm coming," tilted Laura.

One smell of the outside air made Laura wish she could have taken the offer of a ride home in one of GenTapp's security mobiles. But thinking about the borrowed neuro-implant enhancer in her bag made her opt for the doubtful comfort of public transport.

"Hey-O, marn," yelled the other security guard after her. "Hear now of the Mateus...they all take now by the troop."

Laura shook her head at the news and boarded the waiting bus. As she sat at the back of the transport, she thought about the Mateus Minutemen—just another drey,

obscure gang of radical environmentalists. No, the real news was that this was the sixth group of this sort rounded up this month. Estab peace Forces were winning victory after stunning victory.

As the bus rolled out into the smog-bound street, Laura sat back and turned on the video strip that was set into the back of the seat in front of her. Opting for the news strip, she fast-forwarded through the international blits and focused on the local news. The piece on the Mateus was short and did not give much information, except that the gang had been infiltrated and arrests had followed. Next came a blit on local politicians toasting the opening of a new underground toxic-waste facility and touting the financial benefits the area would receive. Laura lost interest for at least two more related items, then watched as the words "WebbCore Fantasy Games" ran across the strip. After turning the audio as high as the units allowed, she learned that GenTapp's small, but peaky, competitor—at least in the fantasy area—had their books seized by the IRS. The newscaster's voice said the information came from an anonymous tip, probably from a disgruntled employee.

Laura turned down the volume and sank back into her seat. Some months ago, when she finished the rough draft of her first sim, she had almost gone to WebbCore. A few of her friends worked there and enjoyed the creative freedom, but Laura had applied and had been accepted by GenTapp. On the down side, the atmosphere was restrictive, with your only security being the quality and salability of your present project; on the upside, it was leading edge. Besides, being a successful writer at GenTapp Construct had another very-important advantage: You needed more than just a big bag of credits to move out of EastSide District—otherwise all the Slackgas dealers would have left long ago—you needed your exit application approved, and with GenTapp Construct lasered across the official form, acceptance was a mere formality.

Thinking about the day's events at WebbCore, Laura automatically wondered about Garland Shad. He had been her main reason for even giving WebbCore a second look. But in the end, even a relationship with their brightest programmer wasn't worth ditching her primary goal in life—to get out of the overpopulated sprawl of the EastSide. At least they were still friends, and tonight Laura would call on that friendship. She was sure Garland would be able to fill her in on the news blit about WebbCore, and besides, he was an excellent scanner. Maybe he could find out how an intruder managed to chop into her Lunar fantasy.

Laura looked outside at the grimy streets. She still had a long way to go before she got the EastSide District. After punching in her destination on the control pad on the arm rest, and stuffing her quilt-pak into the corner of her seat, Laura decided to nap.

Some time later, she woke with a start. Instinctively reaching under her, she found her bag safe. The soft green light in her arm rest glowed softly, assuring her that she had not slept past her point of destination chime. It took her a moment to figure out what had woken her. The transport...it wasn't moving, or even idling. Ah shit, she thought. The bus was down. Pressing her face to the window, Laura looked toward the front of the transp and her mood brightened. She was only a few blocks from home. She cursed her bag, took another peek outside, and made her decision: She would walk.

Standing up, Laura caught the driver watching her through his rear-view mirror. Feeling his eyes on her, she rummaged around in her bag.

From behind the scuffed plexi shield, she heard his

Harsh Mistress SFA

anxious voice. "Hey, Citizen, what do you think you're doing? Please remain seated. We'll be out of here soon enough."

For the moment, Laura chose not to answer. She took a wrinkled tube from her bag and smeared a layer of Dempro on her face and hands. After tossing the tube back into her bag, she pulled out her black ShellTech goggles, set the light dial to low, and put them on.

Then, looking like a mutant housefly, Laura turned to face the driver. She rattled the security bar on the side door. "I'm really wantin' homelace. Three block an the bridge. Come on now, cha-cha; let go."

Laura hadn't made it ten paces from the transit when her eyes—even behind her protective goggles—started to water and sting. She let out a disgusted gasp; she couldn't believe how foul the air tasted tonight. This had to be some kind of record, even for her stinky neighborhood.

Looking over her shoulder, peering through the soupy smog, Laura could still make out the darkened shape of the stalled steel-plated bus. Blurry faces, made fuzzier by the swirling mist, stared back at her through the tick safety glass, the sickly yellow of the bus' interior lights forming flickering halos around their heads.

Catching her bag while carefully navigating around the sludge, water-filled potholes, Laura silently berated herself for her impatience. After all, in these troubled times it would only have been a matter of minutes before an armed charger responded to a "bus down" message. Not that the transpo people cared about their passenger load—it was the bus itself they worried about. A response time of longer than twenty minutes usually meant that they might as well bring another set of tires. The stolen rubber from one of those big beasts would supply sandals for any of the EastSide gangs for at least a month.

Laura looked up from the wet pavement and let out a sigh of relief. She was almost to the bridge, and once over, she would be home.

Whew! Even through her nose-plugs the stench of the EastSide River assaulted her nostrils. After wiping the gritty sludge from her goggles, she looked up to see the late-summer sun fighting a losing battle with the fat, low-hanging storm clouds. The crossing sunset gave the slow-moving, murky-gray waters a dull, reddish cast that reminded her of dried blood. And to think that fish used to live in that water—and people used to eat them!

When she reached the other side of the span, Laura sensed trouble. She looked to the right just in time to glimpse a black shape ducking into a darkened doorway. A few seconds later, and to her left this time, came the unmistakable sound of someone stepping on broken glass.

"Shit!" she said aloud, more in annoyance than fear.

Straight ahead, through the increasing gloom, were the glassed entry doors of her homelace. Reaching into her pack, though loathe to expose the enhancer to the foul outside air, Laura fumbled around for her prod-rod. Closing her hand on the black metallic cylinder, she smiled slyly and eased it out of its protective sheath. Those cha-cha's were in for a surprise, even if they were wearing stunner vests. Her souped-up version of the prod packed almost enough power to short out a medium-sized crowd-dispersal tank.

Laura sensed her unseen stalkers closing in on her. She forced herself to walk steadily toward the dim lights of her homelace, all the while tightening her grip on both the pack and the heavy cadmium rod.

Without warning, a bright quartz light cut through the

gloom and centered her in its stark white beam. Laura switched off her Shelltech meter and braced herself for an attack. Instead she heard the sound of her would-be attackers scurrying for cover.

Moving out of the spotlight, Laura still had to shield her eyes while she studied the bright-yellow mobile idling at the side of the road. Judging by the factory gleam, and the particular shade of yellow, it could only be one of GenTapp's upper-echelon security cars.

Not relinquishing her grip on the prod, now hidden under the flap of her poncho, Laura walked slowly past the vehicle and nodded to the invisible figures she knew were watching from behind the mirrored plate. As she reached the front of her building, she placed her hand into the ID slot, and the first of two steel-and-glass doors swung open.

Sticking her hand into the second ID slot, Laura waited for the reinforced steel door to open. The metal door not only opened, but as usual, it got stuck part way along its track. It took a practiced shoulder to nudge it open the rest of the way.

As the door clanged shut behind her, Laura heard the high whine of the car as it slowly raised itself on its cushion of air. Cautious, Laura opened the metal peak slot in the inner door and watched the shiny prow car hover slowly to the center of the bridge. Once there, it paused for a moment before speeding off into the thick mist.

Laura stood riveted to the door, replaying the last few minutes in her mind. Cold sweat trickled down her ribs as she thought of the stolen enhancer in her bag. But if the company suspected she had taken the sophisticated piece of hardware, why hadn't they taken her in? It wasn't because they were afraid of legal entanglements. GenTapp was a power unto themselves.

"Strange..." Laura whispered as she unsnapped her goggles.

Upon entering her homelace, Laura kicked off her smelly outboots and shucked off her poncho. Carrying them at arms length, she went to the bathroom and placed them in the tiled shower stall. Reaching past a squat tube of shampoo and various creams, Laura retrieved the large, red bottle of Poli-Rinse and sprayed a liberal amount on her boots and her poncho.

"Fucking boots aren't even two months old," she said while examining the melt marks on the heels and soles. Calculating how much water credit she had left for the month, Laura set the shower timer and closed the door. She looked in the mirror and shook her head. It was a good thing she had used the dermal cream before leaving the bus. As she wiped her face clean, she thought back to last week when someone had stolen her weather mask. Tomorrow, she would buy a new one. Reaching under the counter, Laura got out a black-market bottle of AcquaCleanse and took a long drink. Coughing heavily, she hacked up a thick wad of phlegm and spit it in the sink. God! She had to get out of here; it was literally killing her.

Back in the main room, she looked toward her computer. "Spider, open your eye. Access project Lata."

Instantly, Laura's flatscreen came to life. The bright-yellow GenTapp copyright notice appeared on the screen, followed by the white, flashing words, "ALIEN FORTRESS ON LUNA. Created by Laura De Witte."

Laura sat in her recliner and tapped a couple keys to change from verbal to keyboard command. She scrolled back to the end of yesterday's work and watched her on-screen character, with a green Earth as a backdrop, just starting on the



final dig for the alien helmet. Laura glanced at the ancient dig-watch taped to the upper corner of her computer. She knew the last portion of fantasy time would take almost four hours of real time to watch, edit, and then splice in with today's sequence.

Before starting work on the sim, Laura surveyed her cramped surroundings. She had scored the strictly-two-person living unit with some fast talking and some ungratifying sex. She momentarily frowned at the memory, but it was becoming such a common practice these days, and besides—although it made her angry to think about it—it was worth it. In less than three hundred square feet (which included the shower-equipped private bathroom), she had crammed in her large, black SLF recliner, which she had assembled herself and illegally bolted to the wall and floor in front of a wide, steel work table.

Taking up space on one corner of the table was her HeadMount rack with one used, black multi-visored mount and the scavenged parts of at least three more. Beside the rack was her stripped down Mim-Com—dubbed Spider—rewired and overhauled so many times that she doubted anyone from Mimosa Computers would recognize it as one of their own. Beside the computer were her many reference implants and two old pre-2000 fantasy novels—actual paper books with each page covered in protective laminate.

Laura looked around and smiled. It wasn't much, but for a single person in EastSide, it was a lot better than most. Well, she thought, it won't be much longer before I'm out of this dump.

Getting the borrowed bio-soft implant from her pak, Laura reached behind her neck, peeled back her neck patch, and snugged the enhancer into her neural dock. She attached one end of the tri-connector to her implant and quickly popped another end into her computer. She then retrieved the dark glasses that dangled from the drooplets and plugged the third strand of wire into the stem of her glasses. She was almost ready. Her optic-editors might be considered stale-dated, but she still preferred them, and they helped her edit more thoroughly.

She watched her lunar simulation for a few minutes, then remembered that she was going to call Garland. "Spider, back two frames and freeze." Realizing that she had switched to manual, Laura impatiently keyed in the commands. The top left corner of her screen blanked into a four-inch square containing a short list of comm numbers. Laura touched the first number lightly and waited for a connection. Tapping her fingers on her desk, she mindlessly watched time-log animation numbers scroll haltingly down the left lens of her optic-scanners. On the third log-on attempt, she got her connection.

Garland's long, unshaven face nodded a hello at her from the corner of the flatscreen. "From the look of those wires dangling from your head, I would say you've brought your work home with you again," he said.

Smiling, Laura removed her glasses and enlarged the face on her screen. Oversized eyes looked back at her through garland's trademark green goggles. "Ya'm, cha, I don'te—"

"Hold it! If you're going to chatter that pidgin ghetto-speak to me, forget it. I know you can speak perfectly good—"

"Okay! Relax. I will speak proper English just for you. But my, aren't we getting tatty."

The face on the screen broke into a thin smile. "That's more like it. Good to see you. Heard you were working day and night on a new sim. How's it coming?"

"Well, it is and it isn't. Luna is almost finished, and I think it's the best work I've ever done. Hell, never mind the cash credits, it could mean a promo to the daytime drama-sim's, and that would get me out of the East District—but like I said, there is a problem—it's been chopped."

"Intruded? You're kidding. I thought all you Tappers used private domain characters from a stock pool."

"Ya'm. Last week I had a report in to tech security, but so far they've come up empty. I checked for molds and virals myself...nothing. Thought—no make that hoped—that it was a regular overlay glitch, but then it happened again today. It's an extra characterization, and a weird one at that."

Garland rubbed his eyes with the balls of his fists and grunted. "Well that kind of changes things—and deepens the

Harsh Mistress SFA

mystery."

"What do you mean? What mystery?"

"We are having the same problem at WebbCore. Someone with some very sophisticated equipment is getting into our sims. We assumed it was one of your GenTapp spies, using their not-so-secret RikoKye G Chip based adapters, but in case you didn't hear the news today, we have more important things to worry about now. Still, it is a mystery. And there are all those other strange things, like the PeaceKeepers suddenly solving crimes so fast, there isn't room on the blits to list them all."

Laira felt herself beginning to flush. The reference to her GenTapp spies wasn't fair. Months ago, when she and Garland had a thing going, he had assumed she would be working at WebbCore with him and the rest of the EastSide fantasy writers. Laira knew that when she had opted for GenTapp, Garland felt that she had sold out. Well fuck him! "Hey, just wait one minute! I heard it was someone in your idealistic little company who blew the whistle...don't you start picking at--"

"Whoa...look, I'm sorry about that. I forgot that you've turned into quite the company cha over there." Holding up his hands in mock surrender, Garland said, "I can't blame you. I know how badly you want out of EastSide, and I know that takes credits, but before you get all wound up, let me explain."

"Hey, Garland...I'm sorry too. I'm just tired. I've been putting in the hours on this one. Wait a second will you." Laira slid off the recliner and stepped over an open tool box on her way to the bathroom. She opened her ancient bar fridge and fumbled around until she found what she was looking for—a six pack of apple-flavoured Vita-stim. With a hop and a jump, Laira was back in her recliner. She popped open a plastic container and was surrounded by the smell of fresh apples. "OK, shoo. Who is mon pallo cha?"

Laira giggled at the look of dismay on Garland's face. "I am so sorry," she said with exaggerated precision. "Perhaps we could now continue our very interesting conversation. I await your comments."

"It really isn't that funny," Garland said, softly but seriously. "And I hope you take time to eat, rather than try to get by on stim--"

"Gar! You're not my mother...get on with it." Laira felt her mood starting to sour again.

"Yeah, I know. Anyhow, listen up: the news blit was only partially right. There were some credits diverted from general treasury, but it wasn't by any of the executive. A middle-management drone in daily disbursements was skimming on the daily stim-user tax. I had him pegged as senstruck, but it turns out he was a wirehead as well. Harmless though, just milking enough to feed his habits."

Laira shrugged. What Garland told her was no big deal: people trying to get by—happened all the time. Something like what she had to do to get her homeplace...and the installments to keep it. She was about to comment when Garland continued.

"There is something more sinister than petty theft going on here. After the tax boys left, we looked into how the thefts were taking place, and I gotta tell you, it was sick. Petty, but sick. Never mind the mechanics of it, just trust me when I tell you it was a brilliant cover-up."

between sips of her juice, Laira said, "Couldn't I have been that brilliant—he got caught."

"Yes, but that's just it. I studied his doctored program. It was absolutely laser proof. The only person who could have

turned him in was him, and he swears he never said a word to anyone."

"Didn't you say he was a wire? You know they can't be trusted—anyhow, it's not that I'm not sympathetic, but could you please have a look at my program? I want to hand it in tomorrow—complete and hug free."

"Well, it's not your sympathy I want, it's your objectivity. Look at all the arrests lately, and in each and every case, those arrested are enemies of your company or—"

Garland saw Laira's frown and shifted gears. "Sorry...I know it sounds like perances to you."

Laira suddenly felt drained, her stim-juice only leaving her with a jagged edge. With a sigh of exasperation she said, "Look, maybe we can talk about this in a day or so. I just want to get my project done. If you can't or won't help me—just tell me."

"Laira, Laira...all work, but sure; I will upload it to my HeadMount, just in case. The last thing I need is for my Max to get infected. Who knows when I will be working next shift. Rumors say that the Tapp is ready to take us over—and by the way, what coding numbers are you sending to your neutrals these days—a one seven, or are you hot-dogging into the two already?"

Here it comes, Laira thought, and hed. "Actually, it's a three--"

"Three! What do you mean three? Are they all crazy over at Tapp, or is it just you? Haven't you heard that the two are being left on voluntary until the government can finish their testing. What about the dizziness, vomiting, and disorientation. Did you know there were people using mid-tows who couldn't find their own memories for days? They actually thought they were their fantasy characters...Shit! Even your beloved GenTapp with all it's muscle can't get the Feds to move on this one." Garland glowered at her. "The next thing you'll be using will be one of the bootleg RikoKyes."

After a few moments of uncomfortable silence, Laira said, "Hey, Garo...mon, so you scare now, forget pallo." No! She wouldn't give him the satisfaction. Taking a deep breath, she started again. "Garland, stop trying to smother me, and either run the fucking program or just forget the whole thing." From behind her eyes, she could feel a major throbbing begin. "Oh shit. I'm sorry. I know you are only trying--"

Garland Shaid's face became hard. "It will take me some time, through my mount," he said, biting off every word. "I don't want some weird, sicko Tapp mold clogging up my Max. Later."

"Garo..." Laira was talking to a gray screen.

She sighed deeply and felt her headache really coming on, along with a large dose of the guilt. She felt bad about having to lie to Garland. Of course she was using a RikoKye; everyone who wanted to get ahead was. The company just turned a blind eye, but knowing Shaid, with his highly developed sense of morals, chances are he would have turned her in. Too bad, as he had always been there for her and had never been jealous of the fact that she was more creative. Hell, there had been a time when, with his superior program analysis and her creative skills, they had talked about opening a small sim-production house in the EastSide.

Laira removed the implant from her neck and turned it over in her hands. Running her fingers over the bio-soft, she marvelled at the perfect blend of hard, glistening metal and soft, dull-gray plastique. On impulse, she took the neural device to her work bench and set it down. Studying it, she rummaged around in her tool box, thinking about having one

little peek into the inner workings of this top-of-the-line device. Before she started, though, Laura headed back into her bathroom. Reaching under a small stack of mismatched towels, she retrieved a small package of black-market derms, extracted one from the foam holder, and quickly clipped it to her ear. Her headache would be gone in moments.

With the use of a few specialized tools, opening the bio-soft was a matter of going through the motions, but routine ended there. "Damn..." Laura said under her breath, cursing herself for arguing with Garland. He could have told her what a linked-pair of SLX DS storage/transfer chips were doing in her stolen bio-soft.

Tapping her screwdriver against the workbench, Laura wondered what two brutally expensive Mil/Spec chips were doing in a fantasy enhancer. Something wasn't right here. Fingering the derm-chip dangling from her earlobe, Laura gauged her mood and level of alertness before making her decision.

She reached for her black glasses and clipped the small alligator clamp to the small, green crystalline wire joining the storage chips. Checking to make sure that her spliced wire was connected to both her editor's glasses and her computer, Laura sought the SLX's command sequence. Surprisingly and without any attempt at code cracking, the send and erase codes flashed up on her flatscreen.

She read the command lines twice before realizing she wasn't breathing. "Son of a bitch..." she murmured then took a deep breath.

Glancing at the time on her taped digi, Laura counted hours on her fingers before casting aside her glasses and diving under her workbench. Hurriedly she emptied the contents of her scuffed plastic crates on the floor, looking for her metal case of extra data storage chips. Picking up an antique hard drive, she gave it only a moment's thought before casting it aside. Thank Christ she didn't have to depend on one of these relics to store her data. Getting out from under her bench, Laura hung her head so hard she saw stars. Cursing soundly, she ignored the pain and went to work.

A few hours later, she dropped her screwdriver and waited for the soldering iron to cool before dumping it back into her tool box. Her own Spider now had the functional equivalent of an SLX. Glancing again at the time, Laura snapped on her glasses and re-read the lines of information that commanded these sophisticated computer chips. Smiling tightly, she reached for her keyboard and made a few small additions to the those commands.

When she was finished, Laura slowly removed her glasses and cracked her knuckles. Nothing left to do, she thought, except put the implant back together. After she tightened the last seal of the bio-soft and heard the small burst of air that told her the RakoKye Enhancer was once again intact and securely sealed, she let her shoulders drop and began to relax.

Placing the bio-soft back into her quilt-pak, she looked at the time and decided that tomorrow she would have to be a little late for work. Walking to the door, she checked the four deadbolts and the security setting on her room-access screen. Laura thought back to the night when, totally wasted on kuffi, she had decided to adjust the view screen. She had almost electrocuted herself, but in the end, the door bank was so secure that even her oversexed home manager couldn't spy on her. Illegal—but so was his pawing her every month.

Laura instructed her computer to refuse all incoming messages, except any from Garland—and would she have

something to tell him later—and went back to her small bathroom. She could tell by the artificial clean smell that her outerwear would be ready for tomorrow. Reaching under the same stack of towels, she retrieved another derm, this one to allow her to sleep for a few hours and then wake up feeling alert and rested—or so the advertisers claimed. Then she pulled off her clothes and padded naked into the main room.

With one jump, she landed in the middle of her recliner. On impulse, she grabbed a second vita-stim and slugged back half of it in two gulps, spilling some down her chin and naked breasts. Burping loudly, she used her hand to wipe herself almost dry, not minding the fresh smell of apples coming from her body. After turning up the temperature on the recliner's sheet-pad, Laura picked up her HeadMount. She slipped it on and adjusted the dials, then she leaned back, feeling warm and cozy with the derm starting to do its job.

Within seconds of settling into her recliner, Laura heard the steady drone of a humming bird. Looking into her mount visor, she watched an image of herself paddling a birch-bark canoe on a placid lake. Within seconds, the imagery flooded her sensor. Her steady, rhythmic paddling had her almost to the pebbly shore of a deserted beach when the late-afternoon sun broke through a layer of cloud. Shielding her eyes, she cradled the paddle on her lap and plucked a pair of gold aviator glasses from the left breast pocket of her suede-vest...

Far away from the smelly, overpopulated cesspool of EastSide, high in the secured fortress of GenTap Construct, two bodies lay immobile, deep within another fantasy...

Squire Pike looked behind him to the small hand of men huddled by the fireplace; then his eyes were drawn to his master, Sir Alathane, who lay with his eyes closed, wrapped in his bloodstained furs. The healer had done his best. It was up to Alathane's strength now. Pike shook his head. Another battle, another loss. How long could they fight on? How long before...

For days the sleet and snow, and Winkerdahl's troops had taken turns making their lives miserable. Early this afternoon, a hard wind had blown in from the north, presaging the storm which hit two hours before nightfall—a northern storm, the kind people died in, sometimes no more than fifty feet from their homes. Shortly after the storm began, the dark rider appeared once again, riding tall on his handsome, black warhorse despite the blowing storm. Balor raised his bow, but Sir Alathane stayed his arm.

"Hold, my loyal friend," he said. "The black knight has shown us no harm or ill intent."

Balor scowled. "Neither has he made his purpose or his person known to us."

With one glance from Alathane's eyes, Balor fell silent. He lowered his bow but kept it in his hand.

Showing no sign of concern, the lone knight raised his sword and pointed to the east. To a man, all eyes followed his lead. From where they stood shivering, they could see only more snow, a few small hills, and fewer pines.

"Balor, Grimshaw—to me. We seek in that direction. The rest follow at a prudent distance. Weapons drawn."

It was not lost on any of his men, the failing strength of Sir Alathane, as he uttered these words, nor the trail of blood dripping from the left flank of his steed. But for "The lion" not to lead his men, either in battle or in search of shelter, was unthinkable.

Then Balor, with his keen eye, sighted the small but neatly tucked away within a small stand of fat, bushy pines

Harsh Mistress SFA

Against the black knight had proven trustworthy.

Now squire Pike sat with his back to the room, staring out into the whiteness of the storm. From the smell of the heavy air, he expected they would be forced to stay put for at least another day, and then what?

Suddenly the room began to shimmer and fade out of focus. Pike's first reaction was fear, then a second set of memories surged forward and he realized what was happening. He reached under the collar of his dirty tunic to the nape of his neck to touch something that was not there.

On hands and knees, Pike crept toward his master. Almost before he touched Alathane's shoulder, the knight's eyes flew open. The dark-blue eyes that stared at Pike with such fierce clarity temporarily stopped him, but the pulse in his neck could not be denied.

"Jakob—uh, sire, I must take my leave. I must return."

At first Alathane's only stared; then in a dry voice he said, "Of course, my friend. Do not worry. It won't be long now. The overlays of the horsemen slotted in perfectly. We are finally ready to proceed."

Then, firmly grabbing the arm of his manservant, Alathane added, "Try to keep the old host from deteriorating though soon I will say good-bye to that prison of flesh forever."

The room faded rapidly and Squire Pike's last memory was of hunching over his master, nodding at his words while looking out the window at the ever-increasing snow, thinking that perhaps the blizzard would also...

...also blind their pursuers...Sylvano pike came to mumbling about lizzards. He blinked and stared at the high, ornate ceiling for a moment before quickly and tightly shutting his eyes. After many SIF travels, and especially after using these latest enhancers, he knew he had to follow the recovery formula: To avoid vertigo and the accompanying waves of nausea, breath evenly and deeply while counting to a hundred.

As the thin layer of sweat cooled from his body, Pike counted. Between sixty and seventy, like clockwork, he felt the hole in the throat setting. At eighty, he slowly reached to the nape of his neck and popped the bio-soft out his neural dock. Opening one eye, he took a peek at the timer—under for five hours and forty minutes. His full bladder made the last part of the count drag on, but he made it.

Pike got to his feet and walked unsteadily to the bathroom. He hardly glanced at the emaciated figure lying on the other recliner, but he did take the time to scan the myriad of sophisticated life-cycle monitors. It didn't take a medical man to see that time was running out for his boss.

From the bathroom, Pike looked back into the main room through the tinted mirror and sighed. "Well, Jakob," he said, "within a day at most, this will all be over...one way or another."

Pike walked past Jakob and stopped before the picture window that spanned the south wall of the combination office/laboratory. Rather than take in the panoramic view of the city 125 floors below, he looked up to see if he could spot any stars. Even from this high vantage point, the sky was usually obscured by an ugly, dirty mist. But tonight, as if the gods were smiling upon the black citadel of GenTapp, not only were a few hazy stars visible, but the light of a full moon glowed eerily through an unusually-light haze. On impulse, Pike looked to the east, expecting to see the glut of glaring lights he knew were part of the EastSide District, but there were only a few weak pinpoints of light cutting through the

dirty mist. Making a wry face, he looked upward once more to the heauty of the night sky before he turned away from the window. Barely raising his voice, Pike said a single word, and his powerful computer-conn system sprang to life.

In a dutiful-sounding tenor, it said, "Yes, Mister Pike," to acknowledge the command.

"Find Mr. Willis, and send him to me at once."

Moments later, a stick of a man in a gray suit quietly entered the softly-lit office. Breathing deeply, he regarded the top of Sylvano Pike's head, "Lovely night, sir; glad to have you back."

Pike momentarily regarded Willis' reflection, then allowed his eyes to wander past the floor-to-ceiling windows. "Yes, from here it looks very pleasant. What's it like down below?"

Willis shrugged slightly and raised his eyebrows. "Not quite as pleasant, but nothing out of the ordinary." Knowing how Pike disliked small talk, Willis got to the point. "I am sure you will be pleased to hear that a few more of those pesky tribal gangs have been placed into detention...and also, the WebCore project appears to be concluding as expected."

"The Mateus Minutemen," sneered Pike. "The more obscure and meaningless the tribe, the more ridiculous the name they pick for themselves—and to think their demise was brought on by their own hand." Looking at Willis, he smiled. "You are to be commended, my dear Willis, for setting them up like that; imagine, allowing that rag-tag gang of sub-species to actually believe they are smart enough to steal an entire shipment of RikoKyes from one of our secured lots."

"Yes, sir, and through their black-market contacts, more of the undesirables are keeping the new enhancers for personal use. What a bonanza of information for the PeaceKeepers." With hardly contained smugness, Willis picked an invisible strand of lint from his lapel. "If I may add, sir, the irony of those self-righteous fools at WebCore getting themselves into hot water by using an obviously-stolen enhancer. Serves them right."

"Excellent, Mr. Willis. So if there is nothing too pressing, I would like to proceed with—"

"Excuse me, sire, but before we continue, there is the matter of the governor's request for additional RikoKyes. He says he is very pleased with how smoothly the penal colonies are running now that the wardens have a deeper insight into—"

Pike smirked and looked at Willis. "Let him dangle. Remind him that we are still waiting for a favorable ruling on the use of our Series-2 Chips."

Willis nodded and smiled at Pike. "Very good, sir."

Sylvano Pike shrugged. "Business is business, but enough of that. Tomorrow morning we bring in our subject: De Witte. I hope you have everything in order."

Again the sickly excuse for a smile. "Yes, sir. Everything went smoothly. We just wanted to cross-reference her last bio-images with the originals. As expected, she is the perfect candidate. Other than her super-sensitive occipital lobe, the overlay should be perfect."

Now it was Pike's turn to smile. "So...it's her occipital lobe, is it? In other words—she has great eyesight and caught you again, Mr. Willis, or is it Mr. Rawlings?"

Willis sniffed, and feigning deep personal injury, said, "If there is nothing else, sir, I would like to get a few hours sleep if I am to pick up Citron De Witte as scheduled."

Still chuckling, Pike said, "By all means, Mr. Willis; by all means."

Virtual Success

Laura felt, rather than saw, the steady strobes of light playing across her darkened visor. She lay still and listened to the increasing tone of the door chimes. She wouldn't be able to feign sleep much longer. Thank God she had passed out while wearing her Mount. Whoever took the trouble to override her security screen like this must want her pretty badly. The enhancer! That was all it could be. Silently cursing herself for bringing it home, Laura tried to shake herself free from last night's drug-induced slumber. So much for waking up alert and rested. Think! Where did you leave the fucking thing? If that was a GenTapp Marshall staring into her homeplace...finally, she remembered the stolen boo was safely stored in her bag.

The tone of her door chime was getting aggravating, making her head feel like it was in a kettle drum. She took a deep breath, sat up, and ripped off her HeadMount. Prepared to feign surprise at the intrusion—but not having to fake grogginess—Laura got to her feet, letting the sheet-pod fall to the floor. She stared in amazement at the larger-than-life face that scowled at her from the door-screen. Like he had been struck, his jaw dropped and his eyebrows shot up.

Laura stood there puzzled for a moment, then let out a shriek and dove for the sheet-pod. Still hung-over and overwhelmed by the visage of one of the world's most powerful men looming into her home, Laura had forgotten that, other than the demons still clinging to her ear, she was bare-assed naked.

Sylvano Pike quickly regains his composure and said, "Laura De Witte, good morning. As you probably know, my name is Sylvano Pike. I would appreciate your presence at the main office of GenTapp Construct. I have urgent business with you. I have taken the liberty and arranged transportation. The car is outside waiting for you now."

Smiling thinly, he added, "And by the way—please don't forget your—excuse me—our enhancer."

Twenty minutes later, Laura rushed out of her graffiti-splattered front doors, ignoring the early-morning crowd of rubber-neckers. A tall, thin man, all dark glasses and gray suit, stood waiting in front of an old-fashioned, black limousine, oblivious to the growing crowd.

"Citizen De Witte, allow me," the man said and opened the rear door.

After Laura sat down, he surprised her by getting in and sitting across from her. As he closed the door, the car began to move. Not bothering with introductions, he offered Laura coffee or orange juice.

"Are they real?" she blurted.

"Why yes, citizen, quite authentic."

"Good. I'll take both." Might as well go down in style, she thought.

As she sipped and savored the fresh juice, Laura heard a faint buzz. She looked quickly to her escort and noticed a tiny, yet unmistakable, pink glow coming from his left lens.

"Citizen, I have been instructed to verify that you have brought the image enhancer."

"Y'um," Laura pointed at her bag.

Her escort raised his eyebrows and peered over the top of his glasses. "Thank you. Mr. Pike would also like to know if you are wearing or carrying any drugs."

"No," Laura said quietly. Tipping the glass, she finished the last of her juice. Placing the empty glass on the built-in the last of her juice. Placing the empty glass on the built-in tray beside her, Laura looked through the tinted glass. At the rate the District was flying by, she thought they must have cleared

the military lane for them.

"Excuse me, citizen, if you would tell me how you like your coffee..."

Laura was just finishing her second cup of coffee when the car pulled up to the front doors of the GenTapp Tower. Her travel companion opened the door and escorted her through the first of two sets of security doors. As he waved her through the inner doors, Laura felt a tingling in her neck socket. Body-scanners!

When the large tinted-glass doors shut behind them, Laura's senses were overwhelmed. The spacious lobby was crystal clear—somehow not subject to the usual pervasive hint of haze that seemed to hang everywhere else in the city. But it was the clean taste when she inhaled that startled her. Pond air! And the real thing too! Street hawks sold it at two credits for ninety seconds, though most of the time the shut they sold was recycled hospital seconds mixed with small amounts of dental fog-gas. Discretion cast aside, Laura inhaled deeply and noisily, her nostrils flaring.

Her escort smiled blandly. Using the tone of a bored tour-guide, he said, "you may find yourself becoming dizzy if you breathe too much of that at once." Looking down his nose at her, he continued in his condescending way. "Besides, most of the building has a steady stream of it, so just relax and enjoy it while you are here."

The elevator doors, detecting their presence, opened automatically. Laura turned around quickly and took a good look at the beautiful black-and-gray-marble lobby they had passed through all too quickly. She guessed at two thousand feet of unoccupied space, including that taken up by what appeared to be real plants.

While waiting for their floor, Laura looked to her escort. "Do you have a name?"

"Certainly," he replied without the slightest hint of sarcasm.

Laura hung her head and laughed, but before she could say anything more, the elevator door abruptly slid open. The laughter died in her throat when she saw Sylvano Pike standing in front of her, hands on his hips, eyes blazing. Laura's eyes looked onto Pike's and, instantly, she was caught up in the intensity of his presence. As she stared, she thought that although he looked older and shorter than on the NewScenes, he still looked every bit as powerful. Without turning down the power in his eyes, he introduced himself and reached for her hand. Laura was not in the least surprised at the power she felt emanating from his handshake.

Without letting go of her, Pike gently guided her to one of four large, gray leather sofas. Glancing over his shoulder, he said, "That will be all, Willis. Thank you."

Out of the corner of her eye, Laura caught Willis giving Pike a thumbs up sign and a small wave. A small bell started to go off in Laura's head; there was something familiar about that wave. All thoughts of Willis evaporated as the impact of her surroundings overwhelmed her.

Surrounded by the over-stuffed sofas was the largest block of glass Laura had ever seen. Perfectly buffed and polished on the outside, the inside, just below the surface, was an explosion of frozen multi-colored bubbles and star bursts. As Pike circled one of the sofas and sat beside her, Laura surveyed the room. There were paintings, probably originals, on three walls. A floor-to-ceiling window took the place of the fourth wall. Catching a reflection from the table, Laura looked up. Her brow furrowed as she tried to place the magnificent work of art that adorned the large, domed ceiling.

Harsh Mistress SFA

"Excuse me, Ms. De Witte, or would you prefer Laura?"

Ignoring the question, Laura asked one of her own. "Isn't that out of some bankrupt European city—a church, or something like that? I've seen that picture in a research file, or a history sim," she said, still craning her neck upward. "Is it real?"

Pike glanced at the ceiling, then back to Laura. "Well, yes, the mural is quite authentic. Originally, it was part of a famous Roman chapel—now as I was saying, the reason I so urgently—"

"Excuse me," Laura said. "I can't remember ever having real coffee in my life, or genuine orange juice. I think I need to use our bathroom."

For a moment, Pike gave Laura a doleful look; then he said, "Down the hall—your first night."

Her mind racing, Laura walked briskly down the wide hallway. After all that good coffee, she did have to visit the ladies room, but that wasn't the only reason she needed a moment to herself. No way was she going to get her ass hauled across town to the GenTapp Tower, getting pined with fresh juice and coffee all the way, because of a stolen implant. No, something was going on here. And the look that Pike gave her when she got off the elevator. She knew that look and had known what it meant since she was fourteen. But why? She knew she was pretty, but it was just your average pretty, nothing of real note. No, that couldn't be it. In this grossly-overpopulated dog-eat-dog world, if Pike was a pussy-bond, he could have beautiful women in stacks of ten in every room of this fortress. Laura started to take deep breaths, gather control; whatever the reason for her being here, she would maximize the opportunity. No matter what the cost.

While Laura took time to regroup, Pike remained seated, tapping the end of his nose with a well-manicured finger. She would be perfect. At first he had doubted Derry's choice. Wisely he had kept those doubts to himself, for when Laura's stats came in, she had scored the highest possible on all the profile-ambition tests. Even after reaching a degree of success within the company's writing department, her scores remained high. It was as if that degree of success only whetted her appetite for more. But it was the brain patterns—they had been so precise that Pike thought the computer had made an error. But no, Derry had been right again.

Pike smiled wryly to himself; one thing the computer couldn't have predicted was how this scrawny FastSide tribal punk affected him. He remembered how she looked this morning—alluring, almost primal in her nakedness—and then by the elevator—the intensity of her look, the magnetism...

Pike's thoughts were interrupted by the sound of Laura's heels clicking down the hall. He smiled as he caught sight of her shapely legs coming toward him.

"Ah Laura..."

"Ah Laura," nothing. What do you want from me? Looking out the window, she added, "I appreciate the view, but I'm sure that isn't the reason you brought me here."

Pike's smile broadened. So, she would go on the offensive—combative, but not helligerently defensive, as illustrated by her not slipping into that FastSide pudgish-gibberish. Very Good! "First of all, thank you for coming." He held up a hand. "Please don't interrupt...as you are so prone to do. I was going to start by telling you how pleased we are with your work—and we are by the way—but yes, you are quite right. There is something you can do for us. Let me begin by saying that if you agree to help us, your days in the District

will be over. Your account would be so full of tax-free credits that I couldn't see you spending the annual interest...plus,"—Pike recalled her self-esteem scores on the flow charts—"you could be the head of the daytime drama-sag's...if you want the position."

Laura's mouth opened and stayed that way. She looked at Pike and decided she should sit down.

"Are you ready to hear what you must do?" Pike looked upon a suddenly athen Laura. A few moments went by, and still Laura did not move, did not look up. Possibly there was something the computer had missed...there wasn't the reaction he had expected.

Laura looked up slowly, and Pike's breath caught. A look. Just one look and Pike saw the hunger, the naked predatory look of a whole district distilled into the eyes of one young fantasy writer. Their eyes locked, and now it was Pike's turn to look away—they both realized there was nothing she would not do for the rewards he offered.

"So then, I'll get right to it," said Pike softly. "We have a crisis situation here." Pointing behind him to the closed doors, Pike continued. "In that room is our boss, Jakob Derry. He has been doing some fantasy research with a new enhancer—one that is only slightly more advanced than the one you have been using."

For once in her life, Laura was silent.

"A week ago, he went into an SLF program, and...well, he hasn't come back."

Laura quickly found her tongue. "A week? He's been down a whole fucking week! Are you people crazy? Get him out of there—"

Pike ignored her outburst and held up a hand for silence. "I wish it were that simple," he said smoothly. "Like I said, he is using something new, something radical. When his life monitors warned us that he was in danger, we tried removing the neural implant. He went into convulsions immediately. We replaced the enhancer, and his stats stabilized, but he remained in a partial coma; last night they began to decay again. We must get him out of there...soon."

Laura closed her eyes for a moment. She had heard of simboads staying under for fifteen hours straight, only to come back totally insane. Although SLF was a popular diversion, it was still a new form of escape, not without its dangers and unknowns. "So what's this got to do with me? How could I possibly help you?"

"Well, as I mentioned, we were using a new implant. It is very radical." Pike's eyes travelled to Laura's bag on the side of the sofa. "We can now make the fantasies so intense, so real, that no one ever wants to leave."

Laura thought back to last night, when her bio-soft was in pieces. "So? That's been our goal all along, but there are safety features. I still don't get—"

"Please; there is something else—a breakthrough of sorts—the capability for shared fantasies, multi-user sims, something like the multi-tasking capabilities of last century computing."

Laura's eyes widened. Multi-user fantasies were the dream of every writer, but the concept was still within the realm of science-fiction writers. "Really? Does it work? Can I—"

Pike looked straight into Laura's eyes and said, "Young lady...we want—no, we need—you to go into Derry's fantasy and get him out of there."

"I can't believe it. Why me? Where is the genius who invented this new implant? Get him to go in there."

Pike frowned. "It is not that simple. First of all, the

Virtual Success

inventor is Jakob Derry; no one else was in on it. Well, that is not quite true, some personnel were given dated copies of the new enhancers as we made them. We wanted to see if there were any side-effects."

"You fuckers! so you have been experimenting on us—without our consent or knowledge. What a bunch of bastards!"

"Spare me the histrionics. The deed has been done, and the fact remains: we made an error and need to cover it up. We will pay well to correct the situation. You are probably thinking there can't be much left of Derry's mind...well, we will see. Get enough of him back and we can use the proton cone-vats to keep him going until we can make a smooth transference of corporate power."

"Okay...I'm not stupid. I know I can't refuse, but how do I know you will ever let me walk out of here. If this is a cover up, you could toss me out with the rest of the garbage. It's not like anyone would miss me."

Pike smiled. "Good point. But I am a man of my word. I swear that I will never let anything happen to you. I wouldn't want any harm to come to that lovely body and pretty face of yours. But talk is cheap. Use the comm and call anyone you like; tell them where you are and even what you are up to."

"What? So you can round them up later and kill them as well?"

Pike stretched out his arms and spoke softly. "Laura, this is an emergency. What can I do? How can I make you believe me? There comes a time when people have to take a chance on other people...like you with me, and me with you."

Laura walked to the CompuFone and reached for the access pad. She paused and stared at Pike. "So you will let me call any or all of my friends?"

Looking very resigned, Pike just nodded.

Laura smiled a hard smile and turned to Pike. "Good, then I won't—haven't got any friends anyway. So we going to sit around her all day? Let's get to it. What kind of sim is he in? Hope it isn't a porn fantasy—not that they bother me, just bore me senseless."

Pike blinked twice and gave her an only smile. "Everything has been worked out. We just need the intruder, er, the overlay—to find Jakob and get him the hell out of there." Pike got to his feet. "Bring your bag, and we'll move to the other room." He turned and opened the double doors behind him. Waiting for Laura, he half bowed and extended and outstretched arm, ushering her in.

When Laura entered, she was taken by the sheer opulence of the room: Soft Persian carpeting covered much but not all of the low-gleaming fine parquet floor. Two of the walls were mahogany covered and deeply lustered. For a moment, the sheer size and richness of the room, along with the banks of sophisticated computers on the far wall, held Laura's gaze; then she saw the small black-clad figure lying on one of the twin recliners.

While Pike busied himself checking various monitors, Laura looked at the form of Mr. Jakob Derry. Although one of the most powerful men on the planet, he certainly didn't look it with all the tubes and wires protruding from his arms, mouth, and groin. Laura took a good look at his face and remembered that the reclusive inventor/electronics-genius had never allowed his holographs to be taken. The only pictures available of Derry were all taken well before Laura had been born. Gently turning his head, she exposed the back of his neck. The bio-soft protruding from his dock certainly looked like the one she had been using.

Pike motioned for Laura to take the other recliner. She

opened her bag and took out her enhancer. Without another word, she peeled back her patch and popped it into place. Pike quickly walked to her side, trailing a glowing piece of filament which he spliced with apparent skill into Laura's neural dock.

"All right now, your characterization will be that of young page serving Lord Alathano, The Lion. The setting is an alternate, ancient England. The overlay will be of you having been away retrieving important messages from the King to Alathano."

Laura grimaced. "Sword and Sorcery? Yeehh! Is this a straight forward medieval knight saga, replete with damsels in distress and pretty castles on the horizon? Somehow I expected more..."

Pike stopped fiddling with the glowing wires and looked down with surprise at Laura. "Oh, I think you will find the Winterdahl wars fantasy quite fascinating. It is for that reason that I am hooking up a third connection. You will be monitored by myself—watching the action on the screen—and our computer. I do not intend to lose you too."

"Now my dear, if there are no other questions..." Pike tenderly placed his hands on Laura's forehead and said, "Winterdahl wars, sector seven, overlay 100956. Begin!"

Even as the room started to shimmer, Laura reached over and grabbed Pike's arm. Startled he looked down at her. "Before I forget, let your Mr. Wallis know that he makes a lousy intruder and looks downright stupid in a survival su—"

Laura was still talking when, the next thing she realized, she was tasting the wet, coarse wool of her home-spun scarf. A blizzard was blowing directly into her face, but she knew that she had to keep going. With no evidence that she was heading the right direction, she continued on gut instinct alone—an instinct that told her the mysterious black knight who had jostled her at the bear and boar was not with the enemy. He had secretly pressed a folded note into her hand, and then—probably in case and Winterdahl spies were watching—roughly shoved her aside and cursed her for being so clumsy. Though if a woman, rather than a simple page, his treatment of her might have been softer in nature.

Now in the middle of the storm, Laura talked to her steed, urging the strong gelding forward. Though the combination of gentle caresses and the hint of the spur was proving to be tiring—what was that ahead? a flicker of light within the stand of fat pines. Could that be where her lord lay in hiding?

Urging her horse onward, Laura approached what appeared to be a small, rough cabin. Yes, it was, and there had been a light. She looked behind her, but was sure the fierce blizzard would take care of any would-be pursuers. Reaching into her cloak, Laura pulled out a small yellow flag. Gambling once more on the sincerity of the dark knight, she waved the flag, making sure the crest of the red lion was clearly visible. Her brow, though cold from the snow, began to turn clammy with sweat as she wondered if she would receive a stiff arrow through the heart, or a signal of welcome from those hidden within...

"More wine, Jakob—er, Jay?" Pike said as he continued to watch the wintry scene on the flatscreen.

"Um, please—excellent, even using this somewhat untrained palette. Exquisitely full-bodied taste, with not the slightest hint of anything naughty or presumptuous."

First filling the glass next to his, then his own, Pike looked closely at what appeared to be Laura De Witte. "She knew—right at the end, she knew something wasn't right."

Harsh Mistress SFA

The pretty face smiled knowingly at Pike. "Don't worry about that, Sylvano. Let's drink a toast—but remember," she said with iron in her voice, "Don't get any ideas; even in a woman's body, I'm still the boss around here."

Looking down at her new body, Jay let her free hand run down from her multi-pierced right ear to her neck and further to her full breasts. "Mind you, possibly if you get me very drunk, we could see..."

"Sir—excuse me, Jay—what should I do with..."

"That?" asked Jay pointing at the unmoving black form still curled up on the recliner. She took another deep drink of wine before replying. "Have Willis unplug it and burn it with the rest of the garbage."

"Very good." Pike looked at the screen and watched the young page being warmly received by the battle-weary Lord Alathane. "And her?" he asked.

Jay raised a new slender eyebrow and looked to the giant screen. "Keep her in the mainframe with the rest of them. It is not such a bad life: clean air—and she did mention she liked the air—good food, lots of open space...and judging from the looks she is getting from that handsome Lord, possibly some much-needed romance. Yes, by all means, keep her. When we need someone to intrude into someone else's mind, she will be more than happy to assist us, as are all the others."

Looking into her empty glass, she said, "Now let's open some more wine...lots of wine."

Laira's first new thought was almost childlike, but blindingly fast, and then over almost before it impacted upon her enhanced brain. What was it? Fear—pitch black fear—of falling? Not. She wasn't falling—she was travelling from one bright, shimmering oasis of knowledge to another...travelling fast, faster than any human had ever travelled in the past. One part of the entity that had been Laira almost made it home—a human homing instinct, she thought—back into EastSide before realizing that she didn't need or want to be there, and then faster than a blink of an eye she was heading back into the fortress of GenTapp. But wait...these mysterious conduits of travel became less foreign. The entity that is/was Laira experienced an awareness that her access routes were in reality data transmission lines, telephone lines, dedicated and high-speed modem lines.

Laira made a quick detour toward, then into, the mainframe of the PeaceKeepers. A quick swipe and decades of files and dossiers were corrupted, destroyed beyond any hope of salvage, but not before the entity absorbed all the data—the secrets and hidden knowledge of the most powerful law enforcement agency on the planet. Leaving behind her pandemonium, destruction and confusion, Laira merely flicked her ever-expanding consciousness and instantly obliterated any tracks or hint of intrusion.

Back to her destination—the fortress of GenTapp, where a stunned pike and shocked Jakob Derry, masquerading in Laira's human body, were slowly becoming aware that the digitized face winking at them from their computers was the real, the enhanced, Laira De Witte.

The entity that was Laira, thinking even faster than she could travel, looked out and up from her transmission lines, saw and felt the lure of cyberspace. But a moment...just a moment, thought Laira. First there was some unfinished business...

Experimenting for a nano-second gave the Laira entity the sure knowledge that she had enough power surging in the man-made cable to be able to fly off into literally a million

different directions at once...simultaneously be in thousands of data banks at once. Distance became a discarded concept.

Suddenly, but certainly not with any alarm, Laira focused on the once mighty data banks of the GenTapp mainframe. Somewhere from within the data bank an alarm was being tripped. Laira allowed it to function for a while, crawling inside its pulsating current, savouring the raw and strident sound, allowing it to massage her ever-changing mind become bored with the diversion and silenced the alarm.

What had been Laira shifted gears, floated from data bank to data bank, exploring hidden rooms, soaking up incredible pools of knowledge. Her intrusion had been detected by the once-great GenTapp security wizards, but their power ended where Laira's began.

Laira's deep, disembodied laughter echoed and ricocheted off the sterile pillars of their once impenetrable wall of security, their ice showing huge cracks and holes. Soon the entity held the entire data-pak of what was the heart and soul of GenTapp Construct. Before heading out into the outer reaches of cyberspace, the entity turned and spoke—food for thought for a bewildered Jakob Derry. "I'll be waiting for you old bastard...the first time you jack in, I'm coming back to take what's mine—and everything that's yours."

Jay sat forward, looked at Pike, then back at the screen. What makes you think I'd be so foolish? What makes you think you'll get away with this?

The lights winked out as the terminal flashed a red alert. It displayed a number of system failures: lights, elevators, atmospheric control, security doors, food processors.

Jay stabbed away at the keys, refusing to believe that Laira had complete control, that he was locked in, dependent on her for food, water, even air. When he finally gave up and sat back in defeat, Laira's face appeared on the terminal and the lights came back on.

Laira smiled wickedly. "I can be very persuasive."





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THE PRIZE

by

D. Lopes Heald

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Stalts landed hard, blasted flat, view plate shattered, flesh compressed, ears shocked deaf. Trying to scream, his lungs seized into stuttering uselessness. He flopped and lay still, fighting—and losing. Heat scorched through the breaks in his armor. Thought disintegrated.

He woke to blinding light—the blast still seared on his retinas—and tried to move. Pain exploded up his thigh, rammed the hollow of his back and shot through his spine like a fear rocket imploding in his skull.

He screamed.

"No." A hand pinned his flailing arm. "Quiet. Gotta be quiet, Cap." Desperation roughened the whispered command.

An armored palm slid over his mouth. A bodyhurd pressed his side. But the pain didn't stop, washed up his leg, swarmed his groin and set his entrails writhing. A whimper escaped.

Fingers pressed harder. A plated chest bladder pumped against his. In the distance, thin piping sounded, and unreasoned, instinctual fear froze his heart. The call faded. Pump, pump, pump. The other hide breathed. Then—

"They're past." The hide slumped. The hand lifted from his mouth.

"Who?" His whisper escaped thin and tremulous.

"Rorschachs."

Schoxs. He'd meant, who are you. But the answer cleared his mind. Schoxs ate wounded alive. If this man hadn't quieted him—His leg staked pain. He twisted, moaning.

"All right, Cap. All right." Weight lifted from his armored shoulder. "I'll get some damper."

Oh, yes. Maybe he could think then.

"Let me in." Hands tagged at his handhoirs. He keyed the shield tab inside his glove and pressed the t-plate beneath. Such a simple thing. It took forever now. Finally, his armor sighed, exposing access seams. Fingers fumbled at his sleeve and slit the hide's elbow. Chill seeped inward, followed by the sting of a million microscopic tines piercing his skin, spreading relief like a caress. He whimpered. His sleeve snapped shut.

"All right, Cap. Be—"

Weight bit his chest. Something chinked. Something scraped. He stared at blur and white glare, prying. The other man's filter-expelled breath puffed strange and sweet smelling through his broken view plate, prickled his burns, lifted sweat from his hair and whispered over his ear. So scared, he thought. Even with the armor between them, he sensed the other's heart pounding. Who the hell is it? He still didn't recognize the voice. Where was everybody?

Panic threatened, but the drugs dumped in. His thoughts drifted—

—but startled as the hand lifted from his mouth. Still the damper held. Nothing hurt. His mind sharpened and cleared.

"Who?" he asked the shadow hunched above.

"Fairner."

Sucks. Why Fairner? The sick couldn't be trusted with lone duty.

"Where're the others?" He shivered. They'd been hunched together. Whatever hit him, hit them all.

"Dead."

Dead. He swallowed hard and closed his eyes, which made little difference to what he saw. It figured Fairner'd survive. But Fairner lied.

"Can you see, Kid?"

"Yeah. Doyle fell on me—took most of the blast." Big Doyle. "I can't get him off me." Fairner's voice scaled upward, and Stalts knew the kid wasn't lying this time.

"If you get free, can you walk?" He kept his own voice low and steady.

"Yeah." He could sense Fairner fighting for control.

"What you see?"

A hard question, make or break. Fairner hesitated a breath, but kept it together. "The fighting's moved on. Isn't much happening."

"We lost, then?"

"Maybe. But the Schoxs act worried for winners."

"Good."

"There's smoke toward Bang-toe. What's the next nearest rally?"

Now Stalts hesitated. If he told Fairner would the kid zip out and leave him to die? Six months ago Command forced the bastard on him, and every time he looked into Fairner's pretty eyes, he saw someone hiding, playing a private game.

Fairner gambled. Fairner joined in anyone's tricks for a laugh—except the man didn't laugh. Fairner made friends with everyone and used the friendship like barter. Broad shouldered, pretty, golden skinned, he might as well be sticky-tar and women chew heads. He attracted them just the same. Only they didn't end up in Fairner's nest. He took their treats and presents—then they found themselves sleeping under someone else. Asked about it, Sarge just said, he's kind to his friends. But which friends?

Damn you, Sarge—can't he dead. And Phil? Stalts shuddered. He and the lieute'd been a team for a decade. Can't be dead! Don't leave me alone with Fairner. Fairner had. He clung to that thought.

"Cap?" The sick waited for an answer.

"Rodeys," he said. "Rodeys's the nearest rally station." If there was a rally.

Fairner's breath hissed loud in his ear. The tuber knew how to figure the odds too.

"Where you hurt?"

"Bruises. I'm All right." But Fairner always lied—"Got to get Doyle off my foot."

He watched Fairner's silhouette struggle with a darker blob. Having worked this game for twenty years—twenty?—he

Harsh Mistress SFA

knew forming now would be a mistake.

"B-b-bliith!" hell--" Fairner's curse broke on a sob. Stalts squeezed his eyes closed. But he couldn't escape the smell--blood, intestinal bacteria--all of it. The kid flopped at his side, curled up knees to chest and shivered so hard their armor tapped together in a clinky song.

"Kid?"

Fairner hiccaped. Stalts let him be, brisbanding his own strength. The Schox might come foraging-- And it would get damn cold out here after dark with their armor pierced. They needed to move. If Fairner would just do something with his leg.

"Kid?"

"Unh." Fairner sounded shakier than ever. "I'm fi--" The kid gagged and gulped air.

Stalts gritted his teeth, figuring they were finished. But Fairner struggled up, breath rasping loud against the slaughter field silence surrounding them, strangled a moan, controlled his stomach and pushed onto his feet.

"I can see Corky." The kid sucked a long breath and held it. "I can get the medpak. Its just a few meters." It surprised Stalts that Fairner waited for his order.

"Go."

Panic rising, lying still, eyes closed, he listened to the kid's footsteps move away. Patience. But Fairner didn't return. He opened his eyes and raised his head. A blur of red splattered hell surrounded him. Nothing moved. He lay back. Panic hovered over his heart and clenched his chest. Call out, he thought, call-- A single, short whistle, like a toot on a musical pipe, startled the breath from him.

Gods, they got him. But there should be more piping. The Schox were moving wary. And, he'd hear the fight if they caught Fairner. The kid must either be gone or grounded too far away to warn him. He lay slack, listening, just listening.

A scream froze his gut. Don't let it be Fairner. The scream faded. Dear, demon-damned, how could he wish someone else dead rather than the kid? But Fairner stood between him and his own death. Shuffling footsteps sounded--dragging and rustling-- Schox. The footsteps stopped. Below, he thought, beneath the lip of the hill where his troop had stood to fight. Something plopped. Something slurred.

Don't move. Be All right. Lie still--be fine. His stomach swelled against his diaphragm, and he couldn't find enough oxygen. But better to meet a full Schox than a hungry one.

He held on, struggling to control his breathing, his stomach, his bowels, struggling not to make a sound.

The feeding slowed. Gulping faded to snorts and grunts--then shuffling that moved away. A whistle sounded, faint and distant. Finally, only the evening breeze rustled over corpses and shattered armor. Stalts's leg ached. Chill air seeped through his hide's cracks and cracks, growing cooler. A stray puff found the hairs on his face. He shivered.

Had Fairner been the main course? Had the nick deserted before the Schox arrived? Or decided his captain was filleted, and why face the remains? He wouldn't blame a man for that, not even Fairner.

Something rustled--close, not the wind. His gut bunched, and his howl threatened.

"Cap?"

Breath exploded outward. His eyes flipped open, staring at a darkening sky and a horrid shadow figure.

"Damn it, Kid."

Blinking, he steadied. His vision cleared. Coated in gore, one arm of his hide quilled with shrapnel, Fairner looked monstrous. Stalts sucked a deep breath. He could see.

"I got it." Fairner dropped a pack at his side and collapsed onto it. "You need more damper before I do your leg?" The kid sounded unreasonably calm.

"Just a graze." He matched Fairner's tone. But opening his hide again, he wished with all his heart he dared gaze out. A needler brushed his arm.

"All right?"

"Yeah." He waited. The drift came just right. He hadn't realized how much he hurt. "Tha--" The sight of Fairner spreading a puff-splint next his twisted leg took his breath again.

"Here goes." The kid's jerky movements betrayed the calm in his voice.

Fairner lifted. He swallowed a scream and grabbed the kid's arm.

Fairner yanked. He yelped. Pain paralyzed him. Then the splint puffed, and the agony spiraled down. He collapsed beneath Fairner's fussing.

"Close your eyes, Cap."

They were. His broken view plate creaked open. Chill mist hissed over his face, sealing and soothing.

"Look at me."

He obeyed, and before he could focus, liquid slopped into his eyes--superplus saline solution--blessed relief. Blinking, he rolled his head to keep the stuff out of his nose. A cloth blotted the excess. Fairner's armored fingers fumbled a tab behind his ear--an MVB, multi-vital bio--to stop infection.

"Gotta move, Cap." Fairner closed the remains of his view plate. "Now."

"What about you? Your arm?"

"Took care of it waiting for the Schox to leave." The kid's breath panted against his ear. "Damn. I thought they ate you."

"I thought--you." He gripped the taker's shoulder. Fairner shuddered. Armored arms slid around his chest and lifted. He'd forgotten how strong the kid was--when the nick felt like exerting himself. In camp, Fairner stood up first for dietary duty and last for anything else. Like a trained scout, everything the kid did willingly had to do with food. Ought to have Curly check him.

No. Curly's dead. Curly's dead. He shook and trembled. Fairner, in the middle of trying to lift him onto one shoulder while hefting his big firetube over the other, staggered and fell. He fell on the kid, yelping with pain. Fairner clamped an arm around him and hugged.

"Cap?" Fairner held on. "Cap. I know. I know."

If the bastard had said, it's All right, he might have killed him. But the I know sounded true, as if an old man spoke, who really did know. The shaking stopped. Stalts lay still, face against the kid's shoulder. Then Fairner lost it, went stiff, helmet hissing open, and rolled away to huck et convulsively. That steadied Stalts. This bastard was the last damned bit of his command, the end of his command. But captains took care of their people, and the kid needed help. Spirming awkwardly with his splinted leg, he reached a palm under Fairner's helmet and lifted it out of the muck. The kid shook, and the kid whimpered, then took two big breaths and pulled himself together.

"Gotta move, Kid."

Fairner nodded, hauled himself up, legs quaking like whipgrass, and leaned on his firetube for a long breath. Stalts

The Prize

didn't see how the man could carry him, but Fairner reached for the medpak too.

"Leave it," Fairner let it go. "Leave the tube."

"Against regs, Cap." Fairner's voice rose shrill, hysteria threatening.

"Whatever you want."

A tuber's bunch was a tuber's life. It was no time to upset that balance. And maybe he'd never given the kid enough allowance for being the sort of madman it took to wield such a minuscule weapon. Fairner set the tube down just long enough to heft him onto his back, then gathered it up again, locking it in place down his right side. Through the jarring maneuver, Stalts hung limp and cooperative in spite of a thin spot in his damper buffer. "Hold on, Cap." Fairner swayed, then steadied. Stalts held on.

But every way the kid turned another body, another one of his soldiers lay torn to shreds. Little Iva stared out of her view plate as beautiful as ever, except she hadn't any body. The sight cut a hole in him too deep to heal. Fairner didn't make a sound. He figured the kid wasn't looking anymore. Or maybe it just didn't mean anything to the nick. Stalts cried. The kid hadn't hed.

Fairner walked, moving them from nightmare to nightmare, trading off the rise. The last glimmer of light disappeared from the shrouded sky. Fairner kept walking, using enhancers and heat sensors. Stalts's own glowed a halo around his shattered view plate. He hung a helpless burden on the kid's back and began to doubt. He'd prayed for Fairner to come back and haul him out of this mess. But alone, the kid could survive—the last of his troop. Why should he kill them every one?

"Better stash me."

"No."

"That's an order."

Fairner walked, only slowing as they came off the rise and into the shadows of a gutted building complex. They could hide in the ruins, but so could Schoxs. "Put me down." The kid walked. "Idiot." Fairner tripped. One knee buckled, and the kid landed on it with a grunt. Stalts rolled off, taking a crack from Fairner's firetube that set his ears ringing. Damn. They'd passed a hundred spots where Fairner could have left him. Tubers were always firted.

"Fairner, you're inebriated."

"And you're delirious." The kid's chest bladder wheezed against him.

"You're stupid. You're not doing any good. Find me a place, get to rally and send rescue back."

"What if there isn't a rally?"

"Then we're both Schox fodder." Piss on the kid. "At least you'll save yourself some pain in the meantime."

"You're wrong." Fairner grabbed an arm, slid his shoulder beneath it and lifted Stalts onto his feet. "Walk."

He did—sort of—balancing on the splint, gripping his teeth against the pain in his other leg. Their progress was slow and hard on him. But Fairner's breathing steadied. They settled into a haphazard rhythm while his mind wandered.

The nick should leave him. What was he going back to anyway? A captain that got his troop blown the hell away wouldn't find willing recruits to form a new one. No Command. Maybe no legs. No Phil. No Iva. No anyone. What would he do?

"Cap?"

He caught himself, realized he'd giggled aloud. Worrying about what he would do, when there wasn't damn

gonna be a world. You laughing, Buggs? The odds of them living were the little bookie's kind of bet. Stalts felt himself grin like an idiot.

"More damper?" Fairner's voice shook.

"No." He squashed hysteria. "You take a hit."

"No."

"How deep is that stuff hanging out of your arm?"

"Skin deep."

"Hope you got thick skin."

Fairner laughed. It surprised Stalts all to hell. Well, good, he'd done something right by the kid. But then he slipped, taking them down.

"Get up." Fairner recovered with an effort. "You're wearing me out."

"Leave me."

"No."

Arguing got them nowhere. He stood still while the tuber wrestled him aboard and started off at a better pace than they'd been making. Teeth clenched, he rode it out. Fairner must've taken a shot to the head to put this much effort into anything. It wasn't like the nick, not at all. But the kid's brain would activate eventually.

He woke in darkness, on the ground. Finally. The kid found some sense. But something stirred—Fairner, not gone at all. Stalts lay still, listening, trying to think. Were they hiding? Did he dare make a sound? He decided a Schox could hear Fairner's panting half across the city, so there couldn't be any sound.

"Kid?" He groped for Fairner's helmet and found it open. The nick had outrun his internal oxygen production.

"Kid?"

"S'alright." The answer came weak and breathy.

"Damper?"

"Yeah—needer in my belt. My right."

Stalts found it by feel, activated it the same way.

"Is it set?"

"Yeah."

"Gonna open?"

"Can't open the sleeves."

"What's wrong with the other one?"

"Same thing. I just clipped the shrapnel ends off so I could carry you."

"Damn it, Kid."

"Do it in my neck."

"You'll pass out."

"That's why I crawled in here."

Except for the ragged glow of his sensor lights, Stalts couldn't see what here meant. He reached a hand above his head and encountered a coved ceiling. When he rolled to strengthen his leg, the floor seeped and settled, a pile of rubble. If the place didn't cave in on them, it was a good spot. Rorschachs were claustrophobic.

He ran his fingers down Fairner's sweaty jaw, found the hollow of the kid's throat and pressed the needler to it. The tuber's breathing slowed, muscles relaxing. Stalts slid his fingers to Fairner's pulse. It beat like a force stream. Damn.

Cocking his head, he finally found a small piece of view plate through which he made out the kid's face. The man's best color wasn't good. He shifted. Fairner startled, starting him. "Cap?"

"Relax. Your heart's beating."

Fairner's breath hissed out. Stalts felt for fever. The kid's face turned into his hand—warm. Too warm? "Cap—



hungry." Hungry? What was happening with the kid?

"I'll get it." He reached for the regulation food packet on the kid's left bandolier.

"Other side."

"You got extras?" He hesitated.

"Yeah." The kid's voice failed.

"This one?" He tapped the corresponding pocket on the right bandolier.

"Yeah."

He dug out two packets, angling his head and closing one eye to focus through his patch of intact view plate. The extras were illegal slosh, subspecies max that would fill a man if he could stomach it. He cocked his head farther.

"Bad stuff, Kid. You'll huckot."

"I'm used to it. Please. I'm starving."

Fairner's voice shook. Stalts sighed. Damn, it was most of the day since they'd eaten, and Fairner'd worked like a q-male.

"I got regular--"

"No." The kid's voice broke. "Regular won't keep me going."

And finally--Stalts understood. Funny smelling breath, always scrounging after food, inhuman strength, accelerated pulse-- The kid was hiding, playing an obscene game.

"You're a blessed damn breed, aren't you, Fairner?"

"Yeah."

He started to curse. But the kid shuddered so hard it jolted right through him, and he remembered this was his troop, the nick's life his responsibility. And he owed the breed his own. Damn. He rolled onto his back and stared at the fritzling halo of his sensors.

"Cap, please."

His hand still gripped the ration packets. He opened one and held it out to the kid.

"Can't raise my arms anymore."

Lords, hand-feeding a breed. No wonder they forced the kid on him. Give it to Stalts, he's too old to notice. He slit a corner, squinted through his bit of usable view plate and held the ration packet to Fairner's lips. The kid sucked.

"More."

He opened the second packet. The first held enough to make a Homo sapiens s. suck already. So Fairner was definitely Homo s. something-or-other else.

"Army's a piss poor place to hide."

"No." Fairner swallowed. "It's a good place to hide. Just not damn safe." Bitter amusement tinged the breed's voice, and Stalts relaxed a little.

"How do you get enough of the right food?"

"Don't. I gamble for field rations and save them for maneuvers. In camp, I scrounge."

"I noticed. Did you steal my Holinmas pudding?" He'd wanted to kill for that theft, still had an urge to strangle Fairner.

"No." Fairner rolled his head away from the rations packet. "But I probably ate it."

"So who stole it?"

"Maybe Iva." Fairner's voice shook. Stalts exploded inside.

"She wouldn't." His fists balled. The sick had no right.

"She would. You were getting pudgy--soft. She'd do anything for your own good. But she probably didn't. More like Truxa and Texa. They'd take anything."

The Prize

"You're lying." His throat tightened another notch. The part about Iva was true, but not the twins. "I'd know if I had thieves."

"We were all used to it. No one complained. If you needed something, it was safe. If you didn't, and they did, they borrowed it. They'd bring it back when they finished with it or leave something else. They're—" Farmer hesitated, voice breaking. "—they were Normans, but adopted Bhs culture." Stalts hadn't known the last. Farmer sighed. "They didn't take that much."

Stalts hung over the brood stunned, mind wandering to better times. Damn.

"Someone left me a cake later," he said.

"Them."

It hurt—hurt bad that this freak knew anything about his own people that he didn't. Damn.

Farmer choked. He grabbed the kid's collar spagot and pushed it against fevered lips. Sucking, Farmer choked again, but finally settled with a moan.

"That damper should be working better."

"Doing as good as ever."

Damn. "What see you?"

"Half s.e., a little Rigi, a little Ush-shangie."

Two subspecies, the last barely sapient however pretty the things were. Common sense said that a person's non-norm physical requirements should be known by the commanding officer. But regulation, this one time, favored the broods. If they could pass, nothing said they had to reveal their genetics to anyone, not even the troop medic. Some breeds would rather die of misdiagnosis than take a chance on their fellow soldiers finding them out.

"Did Curly know?"

"Just about everybody knew or guessed."

Stalts felt the rubble running out from under him. He'd thought he knew his troop. Damn them. Damn them for dying on him.

"Why didn't anyone tell me?"

"Maybe the way you treated me, they figured you knew."

He treat the kid that bad?

"You had women flocking from every troop in regiment. Did they all know?"

"No." Farmer's voice dropped. "I needed their presents, but it wasn't right to take advantage."

"So you let your friends sleep with them?"

Farmer didn't answer. Stalts slammed a fist against rubble. Farmer sobbed. Damn it.

Stalts couldn't move. It didn't matter that the man hurt, didn't matter he'd been a fool to forget Iva and Doyle, Curly and the twins and all the others were Farmer's troop too. He couldn't move, just sat while the kid cried, lost in bad damper.

Eventually Farmer fell asleep, at least he shut up. Stalts wriggled around until he faced the dim, distant circle of glare that marked their egress from this hell pit. He shouldn't have shook the kid up, was sorry he knew about the kid, was even sorer Farmer'd ever been born.

Shouldn't have been, the triple scumming abomination. Oh damn, he was sorry everyone was dead.

He drew his Tri-S-10, resting it on a fallen construction block. Those sorries couldn't be helped, but he owed the kid enough to watch over his sleep.

Clark.

He shivered awake.

Clark.

He reached for Farmer, but the kid was already moving. Injured arms pinned to his shingles, Farmer wriggled near. A call echoed through the building rubble. A low bum vibrated the air. Stalts cocked his head. The kid stared back at him.

Rorschos.

Farmer grabbed the firetube, his movements desperate and awkward, his breathing short. Stalts clomped the kid's shoulder, stopping—Baammmmm.

The blast slammed them flat. Rubble rained on their heads. Stalts wrapped his arms about his weakened helm and prayed.

Baammmmm. A second jolt rained more garbage. Baammmmm. Damn it. The shockwave passed. The big two-gun whined as it recharged. The Schoxs had a firing pad outside. He slapped Farmer's rump, and they scrambled forward, the nose of their progress masked by the gun's growl. Farmer rose into a crouch, his big tube tucked under one arm, dragging the end of it.

Stalts counted. Twenty seconds. The gun's whine built to a shriek. Ten.

Farmer hit the ground in front him, armored body shielding his from the forward shockwave. He wondered as the gun pound-pound-pounded again, if Farmer's positioning was intentional protection. Thirty seconds. They started crawling while the gun's whine spiraled upward again.

Twenty. Ten.

They broke into open space next the outer wall of the building. Light flared. The gun blew. A warm squirt streamed down Stalts's sanitary line, and Farmer's body bounced off the ground in front of him.

Ears stunned, he crawled over the tuber and looked out on the Rorschos' emplacement. Outside, a mobile launcher supported a double time unit. Only one arm was operational, which accounted for the thirty second pause between blast clusters. Schoxs labored over the second arm. When that barrel activated, there would be a constant blast stream. Stalts had lost track of direction, but guessed the guns were trained on Redeye.

He glanced at Farmer. Shadow and light played wildly over the brood as he struggled to get his arms and the big firetube into position.

Lords.

Stalts froze, looking from Farmer to the Schoxs. It was insane. What kind of game was the kid running?

But Farmer dropped hump, unable to lift the tube into position, face twisted with pain. Stalts touched his cheek, and Farmer's pretty eyes opened. They stared at each other. He leaned next Farmer's half open view plate.

"If you fire, we're dead."

Farmer nodded. Stalts nodded back. No one lived forever.

Baammmmm!

He rode out the shock. A cave-in sounded behind them.

Thirty. He lifted the firetube.

Twenty. He positioned the kid's hands and got one knee under himself.

Ten.

Harsh Mistress SFA

He knew that even with Farmer's arms half useless, the kid would make a better shot of it than he could. A firetube was an insane weapon. Men, women, even a mule like Farmer, tubers possessed special psyche. It took more than training to sense and adjust for the vagaries of an imple-zionate power stream that launched next to your ear. Stalts put his shoulder under the weapon's butt to absorb some of the kick for the kid when it came.

Bammmm! Bammmm! Bammmmmm!
Bellowed around them. Building blocks thudded distantly. He almost dropped the tube.

Thirty. He felt the launcher activate.

Twenty. Farmer tensed.

Ten.

The tube slammed Stalts's shoulder and knocked him backwards, Farmer on top. He rolled over the kid--the tuber too stunned to protect himself--and held on as the prime-charged line gun outside went up with a heart stuttering, lung stunning, mind shattering whuuumppppff.

They stared at each other, face to face. The little pocket created by their two helms pressed together had saved them, created a space to breathe with oxygen from both hides feeding into it. Outside of that tiny space, they were buried in debris.

"Kid?"

Farmer's breath caught.

"We did it, Kid."

Damn. This was no fair way to die after what the kid'd just done--taking out a sucking fine unit.

"Come on, Kid. Can you move?"

"Unnh."

Rustling sounded, Farmer trying, but the tuber's breathing weakened. The rustling stopped. Well--

"Hey!" The yell started Stalts's gut into his mouth.

"You alive in there?"

That wasn't a Schox yelling.

"Kid!"

Farmer didn't answer. Stalts tried to move himself--and screamed, precisely what he needed to do anyway.

"Got a live one!"

"Captain?"

"Yes."

"Captain Mi'ing." An attractive woman, she leamed over Stalts. "You two take out this emplacement?"

"Yeah."

"Damn." Mi'ing shook her head. "You got some mukes. One bell of a bang. Can't believe you're still alive."

"Me ether. How's my man?"

"Be All right. Where's the rest of your troop?"

"He is my troop."

"Sorry, Sir." She didn't sound sorry.

"Better, Kid?" Stalts held a water tube to Farmer's lips. The breed sucked thirstily, shaking head to toe.

Mi'ing's meds--damn them--had pulled two blades of shrapnel out of the kid's arm, yanking the shards backwards through the armor, taking dangerous risks. The kid squirted blood like a stuck Schox, but with sealant pumped into the holes, Farmer had movement in his right arm again.

Stalts wiped sweat from the kid's bare face and checked the flint push taped to his throat. It was sucked dry.

"Doc." He waved at a med. "Need another push."

"When I get a chance." The man went back to wrapping a smashed thumb.

Stalts gritted his teeth. He'd been afraid the meds would kill the kid out of ignorance. So he'd told them Farmer was brood. After that, they hurt the kid more than necessary. But he didn't dare complain.

Their rescue was tentative at best. Mi'ing's troop, a hundred and fifty strong, had communications with the main army. But it was cut off physically--operating behind enemy lines--and Mi'ing hadn't been looking for survivors. Her people spotted the smashed end of Farmer's firetube and started digging for its power pak. Every time the troop lieutenant looked Stalts's way, his expression said it was damn bad luck they'd dug out two wounded with the tube.

Mi'ing's calculating glances gave Stalts no peace either. She'd set the meds to work on Farmer. So what did she want from the kid?

"What you think, Cap?"

"That we aren't out of this."

"Yeah." Farmer worked onto his side and slowly curled up to lean his head on his knees.

"You ought to rest."

"I am."

The kid's head slid off his knee and against Stalts's shoulder. He wrapped an arm around Farmer. They'd lived through too much since yesterday for him to hold a grudge against the breed. Besides, he needed someone to cling to himself.

"I'll carry you, Cap. Soon's this damper wears off. I'll carry you out." Farmer drooped lower.

"Just rest."

"Yeah--thanks." Farmer went limp. Damn the kid. Thanks for what?

Farmer still slept when the word passed to move out. Expecting to be left, Stalts didn't disturb the breed. But four soldiers showed up, shoveled them onto carriers and hauled them off. Stalts didn't figure Mi'ing for either kind or generous. So what did she want from them?

They made camp that night in the ruins of a malt-based brewery. The place reeked, but offered solid walls to put their backs against. The troop scattered through the wreckage, finding tunnels and rubble caves for shelter.

Abandoned, Stalts shivered in an exhausted heap until Farmer dragged him to a smelly vat, tucked him inside and sat down, blocking the vat's opening. The accommodations weren't the best to be found--Mi'ing's people had those--but better than nothing. Farmer sucked rations in silence. Stalts did the same, studying the breed. Farmer'd walked most of the afternoon and looked worn and tired, but stronger than this morning.

"Sleep, Cap."

Stalts obeyed without a word, trusting his breed to guard him.

"Cap." A hand tapped his armored shoulder.

"Mmmph." He blinked into darkness.

"Mi'ing's coming."

He forced his head up, then his shoulders. Every fiber clamored cell deep pain, but he wormed against Farmer's back and strained to focus.

"Captain?" Outside the vat, Mi'ing stood alone. Her

The Prize

too casual, too polite tone grated Stalts's nerves.

"Yeah?"

"We need to talk."

Hands on hips, she made no move to kneel to their level. So Stalts pushed Farmer, and they both climbed out, the kid wrestling him onto a pile of building blocks.

"At your command, Captain." Stalts watched her through a fuzz of exhaustion as Farmer backed off to give them privacy.

"How good is your tube?"

"Reasonable." He let a note of speculation creep into his voice as if hedging the facts in Farmer's favor. Actually, Farmer was one of the best tubers he'd ever signed—something else for which he'd never given the kid credit.

"He took out the time emplacement with both arms paralyzed?"

"He did." No use trying to deny it. "I placed the tube for him, wrapped his hands around it, held up the back end. He did the rest."

"Could he do it again? Do it alone before dawn?"

Looking for a sacrifice. And why lose one of her own? A captain needed to be popular come recruitment time. The ARMY was business—even more so now than when he'd joined. You had to be a very good soldier to be promoted to captain, and you had to come with your own troop in hand. People meant money. The more people you had, the more security you and they enjoyed. One man did not make a troop. The instant death records were filed for his people, his captain's shield would be retired. He said Farmer were meat in the wind. Except—he was still a captain. That didn't change until the accouters closed. He shook his head.

"He hasn't slept. He's stretched on damper. I wouldn't bet your lives on him. Mine, I've got no choice."

"You're wrong."

Stalts carefully straightened his unsplinted leg.

"I need a Second." Mi'ing propped a boot on the block next Stalts's splint. "Mine dropped in the first fire."

"What about your horse?"

"He's just acting. Isn't a leader."

That was too obvious.

"I don't know. I have favors to call in." He hed. "I'll have a troop before accounts close."

"You can do that anyway, from the safety of a second's slot. Anything's safer than sitting here without legs."

He'd been waiting for the threat. If he didn't surrender Farmer, Mi'ing would abandon them. Maybe she'd leave him anyway. Maybe not. Rescuing an officer earned reward points. Still—Damn. If Mi'ing was serious, he could save his shield.

"Let me talk to him—alone."

Mi'ing hesitated. "Whatever. Don't take long."

"No."

She moved away.

"You hear?" Farmer, howled nearer now than when the conversation had begun.

"Yeah." Farmer knelt beside him. "Trust her?"

"No."

"It's a good deal. Talks it, Cap."

"You want to join her?"

"Sure." But the kid took too long—lying.

"They know what you are."

"Meat people do."

Still lying. Farmer didn't want any part of this troop.

Rubble crunched. Farmer stood.

"I'll take you both in." Mi'ing had been savoring. "I need people. You need a troop. Just do this errand for me."

Stalts strained his neck to get some kind of view of Mi'ing's face. Her voice was wrong.

"Make your life easy." She spoke over his head to Farmer. "Make your Captain's life easy. After what you've survived already, this'll be shidin' easy."

"Could you lay it out, Sir?"

Farmer sounded so subservient, it grated Stalts's nerves. The kid was never that proper with him.

"I'll demonstrate every detail," she said, voice suddenly husky. "Come along to my quarters."

Mi'ing beckoned. What Stalts could see of her expression looked hungry, leaving no doubts as to what she offered now. Farmer tensed. "Cap?" Stalts hesitated. Farmer started to go. He grabbed the man's hand.

"No. We're too tired for deals tonight."

And through both armored hides, Stalts felt Farmer's relief. The kid took a backward step, planting himself at Stalts's shoulder. "You're making a mistake." Mi'ing spun away. Her retreating footsteps echoed loud in the ruins, and a breeze puffed against Stalts's face like a backlash of rage. Farmer shuddered.

"All right, Kid?"

"Yes, Sir."

Respect. It startled him. But Farmer's tone rang true, and it felt good. After all the failures this tour, it felt damn good, even if they'd just condemned themselves to slow death.

"Com'on, Cap. The wind is nasty."

Farmer wrestled him back to the vat and started to shove him inside.

"No." Stalts balked. "I'll sit watch. It's your turn to sleep."

"Doesn't much matter does it?"

"No." He slumped. Mi'ing's people would walk away regardless.

So the kid stuffed salvaged rags beneath his broken leg, providing meager comfort at least, and hugged him near, sheltering the larger holes in his armor.

"You All right, Kid?" Doubts gnawed. He'd just sobbed Farmer of a night with a tasty female body—a prospect a damn sight better than this.

"I'm fine."

"You sure you wouldn't have liked a little stroking?"

"Not from her."

"You ever sleep with Iva?" The words spilled out unexpected.

"Yes, Sir." Farmer's voice broke. Stalts's jaw clenched. "I'm sorry if that offends you. I loved her."

Stalts forced his teeth apart. "We all loved her, Kid." Which was too true. He asked her to marry him once. But she wouldn't give up the rest of the troop, loved them all, family. If she quit fighting, she'd never see them again. He didn't ask twice. He should be outraged to learn she'd knowingly slept with a breed—wasn't it. Iva loved people—that's all, and he couldn't imagine a man who loved Iva letting the likes of Mi'ing touch him. He boosted his respect for Farmer.

"Key your helm lamp." He put a hand behind the kid's helmet and nudged it nearer.

Light glowed, illuminating Farmer's face. He stared at the kid's teary eyes and quivering lips. Even coated with days of grime and sweat, the kid was pretty, but worn to the bone, nerves raw, cheek twitching from too much damper.

Harsh Mistress SFA

Mi'ing meant him no good. Rage bubbled up.

"The bitch." He let his head drop. Farmer's arm settled over him. The light went out.

"You hurt, Kid?"

"It's All right. Sleep."

He yielded, started to drift, then snapped awake again.

"Don't sell me out, Farmer." His heart misbeat.

"Don't go sneaking off because you think it's for my own damn good. Mi'ing will leave me now no matter what. And don't do it for duty or honor. Whatever suicide mission Mi'ing's thought up, its only to earn her kill points. Won't make a damn bit of difference to this battle or she'd have sold it that way first. The bitch'll for sure claim the time kill. She can't do that with either of us alive."

"That's what I figure." Farmer's head sagged.

"Thanks for stopping me out there."

"Thanks for offering to go."

Farmer's arm tightened around him. The kid shuddered. Stalts lay his head down and slept deep.

They woke to the rumble and quake of heavy bombardment in the distance—a big ship straddling the planet. The question was who's?

Farmer wriggled outside and crouched at the vat's opening.

"We're alone, Cap."

Mi'ing had made good on her threats.

"I—" A ground swell slammed Stalts silent. When things settled, he pulled toward Farmer. "Better move."

Farmer wriggled him out into mucky down, picked him up and started walking.

"You can still leave me, Kid."

"No I can't."

The mark grew darker as the day wore on. Airborne debris clogged the sky and weighted the air, making it difficult for Stalts to breathe through his broken filter. By midday—finding no shelter, no safe place to stop—they traversed the flat rubble of pre-invasion fire targets. From his perch on Farmer's back, Stalts watched smoke eddy over Farmer's boots and crawl up his thighs. Behind them the bombardment stopped.

Farmer wobbled, failing. Stalts didn't know how the breed had gotten them this far. Pulverized construction stone skittered and crunched. Farmer hunched, legs sprawling, braced his feet and managed to steady, but a sound escaped his chest.

"Stop."

Farmer wobbled on. Until both his feet skidded, and they went down, the kid's arms slamming the ground. Stalts rolled free. Farmer's helm opened, and his body convulsed, strangling on dry heaves.

Stalts lay still. Holes gaped in his damper, but with his extremities numb, his legs hurt less and less. He envisioned the damage progressing up his spine, slowly paralyzing him. Let it go. He choked down despair and squirmed against Farmer's back, slipping his hand inside the kid's face plate to press chill fingers to the man's forehead.

"Damn you." Burning with fever, Farmer whimpered as he wrestled him over and pulled the water tube from Farmer's collar. The tube was dry. So he tugged his own free and leaned close to reach Farmer's mouth, forced to breathe Farmer's stinking breath. It was worth it to hear the kid swallow and sigh with momentary relief. They were done.

He wrapped himself over the breed—for all the good that did—and went limp, conserving energy, ordering his

thoughts, trying to make his peace.

"Sorry, Cap."

"Don't be an idiot. You did good. You did fine." He hugged the breed's shoulders.

"Not good enough."

"Why? There someone else you'd rather die with?"

Farmer's breath caught. "Yeah. Mi'ing."

Stalts laughed. Farmer giggled.

"Her helm will get her eventually."

Farmer giggled again—fritted.

"Funny—" Stalts talked to distract the kid. "Funny how you think you know people. I thought I really knew my troop. I loved every one of you. But I never knew the twins were kleptoes, you were a breed or that Carly and Iva would keep that from me. Didn't know them at all."

"You're wrong." Farmer's voice shook. "You know what they needed. Took care of them. They worshipped you, were good people. You knew that, which is all that counted."

"Worship's a bit strong." Lying there dying, Stalts knew his troop had never been the richest nor most successful. "I never got them as much as they deserved."

"Yeah, you did. You gave them respect."

"They deserved that. Hell, Farmer, I'm sorry I never gave you more."

"I got it second hand. From Buggs and Carly, Doyle—" His voice broke. He sucked a long breath. "More than I got anywhere else. You took me on, so they respected your decision and gave me respect by default."

"Hell. You were forced on me."

"I know. But I didn't tell them." Farmer swallowed a sob. "Gods, Cap, I should've told them. I should've—"

"Let it be." He hugged Farmer, pressing his palms to the kid's burning cheeks. They'd have resented the forcing more than you."

"Yeah. They hated people to cause you trouble. They worshipped you."

"Don't start that again."

"Why? You think I tried to save your life for myself?" Farmer laughed, a weak hiccup. "Until last night, I was hauling you on my back just to keep them from haunting me. They would if I let you die."

A tear started from Stalts's eye. "Damn you."

"Cap!" The kid shuddered, shivering uncontrollably.

"It's All right." He curled around Farmer and rocked him. "It's All right." The kid relaxed, then stiffened.

"Zammers." Stalts eased his head and held his breath. Damn. Listening with aching ears as the craft flew nearer, he recognized the vibrations. Their own. But the crew would never sensor them in this mess. Smoke eddied and whirled. The zammers passed overhead. He clung to Farmer. The kid went limp, past caring.

"Captain?"

He woke with an oxygen pad stuck to his face, feeling no pain at all, just a lightness. It didn't make sense. You don't die this way.

Someone yelped.

"Farmer!"

They held him down.

"He's All right," the med said. "Just relax."

Rescued? By gods. Rescued!

"How'd you find us?"

"Captain Mi'ing's troop turned in your location."

"Mi'ing?"

The Prize

"Well, her lieutenant. M'ing didn't make it."

Stalts's breath sighed out. "It's happened to nicer people."

"Cap?"

Stalts peeked from his bunk, startled. He'd taken transient quarters while waiting for the army to toss him. His legs were healing, but he didn't have it in him to try to scrounge a troop or beg an officer's slot off some old friend. There were favors he could call in, but none big enough, none he wanted to collect. So who'd be visiting him now?

Fairner.

"Hey, Kid. I thought someone scooped you up."

Fairner'd barely stayed in Med two days. The condition they released the kid in was a crime, but Fairner wanted to leave. So Stalts signed his freedom pass. He hadn't expected to see the tuber again.

"How're the legs, Cap?"

"Good, but therapy's a bitch."

"Yeah." Fairner waved the pressure brace on his right arm, evidence of deep muscle reconstruction.

"What's up, Kid?" Fairner had that look, working some game. "You got a herth?"

"Maybe. Been with friends."

Fairner waved behind him, and Stalts noticed the nearest bunks all stood empty. A chill trickled down his spine. His stomach yelled a bag unh-unh. But he owed Fairner his life. So he slipped from the bunk and stood his ground as a pack of the ugliest breeds he'd ever seen filled the aisle behind the kid.

"Speak to me fast, Fairner."

"You still have your shield?"

"Not for long."

"You retiring?"

"Something like that."

"Don't."

"You haven't the right--"

But Fairner did, because technically he was still Fairner's captain and responsible for providing him a herth. That's how he'd ended up with the kid to begin with, paying off old debts to another officer stuck with Fairner.

"Cap--"

Sweat popped on the kid's forehead, and his cheeks reddened. The breed pack shifted restlessly. The kid glanced back and wobbled. Stalts's gut wobbled too as he saw the tuber clearly for the first time. Fairner was a ghost--exhausted, home thin, hair patchy, not eating right--if he was eating at all. And he hadn't begun to heal. You self-pitying old fool, Stalts cursed himself. He'd abandoned this man with nothing. The breed hadn't escaped the battlefield yet. No troop would take him in this condition. The kid would die.

"Fairner?"

"Cap. You want a troop?" The kid blinked and squinted, his voice weary, scared, but defiant. "There's fourteen of us. Say yes, and we'll get more."

"Who--" Stalts took several deep breaths before he understood. "Gods, Kid."

He looked from face to monstrous face as the breeds bunched at Fairner's back. They all wore that look in their eyes--the one Fairner used to wear with him--distrust. They wanted to hope, but didn't dare. How had Fairner counted them this far? What scam had the kid pitched? Did they know this captain for sale killed his entire damn troop? He breathed between clenched teeth. These breeds could all be more

sapient than Fairner, but none were passers, were all untouchables, genetic abominations, a captain's nightmare--except he wouldn't be a captain much longer. Fairner staggered. Alien hands reached to steady him. Stalts caught him first.

"Kid--"

Fairner blinked, his expression still hopeful. Stalts started to shake his head. But the kid wouldn't look away--and he owed this man.

"Say the word, Sir. And you're still a captain. Give us a shield, and we'll be the loyalist damn troop ever."

Fairner's voice broke.

Stalts tugged the kid's head onto his shoulder, remembering what they'd both lost. Did the memory of his past troop demand that he do better than captain a monastery of breeds or demand nothing less? Fairner'd saved him for the love of the troop. The troop loved Fairner too--lva did anyway. He knew that in his gut, remembering things now that he'd ignored when he'd been snug in possession of the others--Buggs, Rose, Joe, Phil--all of them. Would they have him if he let Fairner die? The kid straightened and stood back, aligning himself with the other breeds. His gut danced. "I need officers."

Fairner nodded. "Alta-Lieutenant Osh."

A huge woman stepped forward, all teeth and hard muscle. Stalts stared. Osh stared him back, her eyes intelligent and quick.

"The rest?" He nodded toward the pack.

"All good soldier," Osh answered. "I keep my eye to the regiment breeds. You got a good one, just young." Phil talked like that--

Realization exploded over him. He didn't have to retire broke or hag a troop. He could call in debts. Sucks, people would give him breeds. "Fairner," he said. "This game you're playing is dangerous."

"I figure--" The kid shrugged. "--there's a reason we lived, Cap. I've made this mine." Their eyes met.

"They know what happened to my last command?"

"They understand, Sir. It wasn't your fault. Most officers try to get them killed." Stalts's lungs seized. His heart stuttered.

Forgiveness. No one else had offered it--not the review board, not himself. He bit down on his lip, tasting blood. Fairner, you damn sick

"All right," He forced his clenched jaw open. "I'll play."

Fairner blinked, his expression modded with relief and astonishment. "Yes, Sir."

Respect.

It felt good, a prize demanding hard to win in Fairner's game.





CHANGING THE UNIVERSE

BY
S.C. LOFTON

Narcolepsy didn't stop seven-year-old Jessy Stake from having a fine time. She couldn't even pronounce her condition's nasty name. Not that narcolepsy really mattered. Her daddy told her big science would find a cure soon enough for her sudden deep sleep spells. Boy, did she hope so! A person needed to be dam healthy to travel among the stars.

In soft brown overalls and long, black pigtails, little Jessy played artistically outside her father's mountain cabin, south of Santa Cruz. The two of them had gotten away from the hectic life at Alaska Complex, away from the cold, stark land. When her father wasn't inside the cabin haggling with members, they watched whales migrating north. Or they took nature walks through the woods. So much green, so many neat insects. Everything smelled alive and warm. There was no need to wear her heavy parka like up north. And better yet, she didn't have her big brother, Sammy, constantly underfoot, slowing her down. She had important things to do! Her daddy always said so.

Today was warm and windy, her father stayed inside talking with a representative from the Asteroid Miners Union. Jessy sat outside by the solar collector using an old focus mirror to snatch away a sunbeam. Buant wood tinged the air.

A board rested against the cabin, and she used the sun to burn an image of a space ship into its surface. A ship, she imagined, made of the best electronics and metals. Best of the best! She had nearly finished her art project when, without warning, she blacked out cold.

* * *

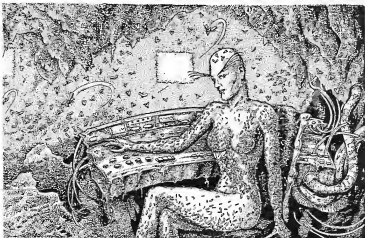
NOTES: Katsu Tomita's senior thesis.

All multicellular life is based on DNA. There has been no successful argument that has separated humanity from the animal kingdom: it is unequivocally bonded to the animal. The genetic difference between a rat and a human is twenty percent; between a human and chimpanzee, the genetic difference is less than one percent. Give the chumps a million years, and Homo chumps might be asking the question, "Do I have free will?" The answer is the same as the one for Homo sapiens: negative. No free will. No altruism: Humans are complex cellular organisms responding to stimuli in the environment, slaves to the gene. If I shine a bright light into a deer's eyes, it will respond, say, by turning its head. When I shine the light in another deer's eyes, it will respond, say, by running away. Same light, yet another deer will respond, say, by blinking. Three deer, same stimulus, different reactions. Do we conclude that deer have free will?

War and peace, civilization and ruins, love and hate are Homo sapiens' cycle; repetition for thousands of years. Emotion remains our only constant. Homo sapiens has not changed. The genes rule, death is stalking the fields. For all practical purposes, we are still cave dwellers sitting by the campfire, grunting, holding our M-16's in our hairy arms and listening to our Sony Walkmans with our hairy ears. Better toolmakers, yes, better humans—I think not.

The DNA coils around our free will, chains for slaves.

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When humanity mastered electricity, the way a cat masters the maze, it weakened the chains. When humanity mastered gravity, the way birds mastered flight, it weakened its chains further.

I will master the DNA molecule the way humanity has mastered machines, and break the chains forever.

Her gigtails were a distant memory. No longer a little girl, Jessica Stake was twenty-four and vice president of her father's company, ClaimStake Telemining and Remote Shipping. Headquartered on Point Hope, Alaska, inside the Arctic Circle, her family's company was the largest international orbital mining hub on Earth. Her black hair was short. She used no facial or body cosmetics. There were too many goals to accomplish; she didn't waste energy on trivial vanity. Mars needed people on it, not robots. A strict vegetarian diet, though more for her neurolepsy, kept her thin; maybe a tad too thin according to an ex-romantic interest. Her brother pestered her often: Get a life! Fall in love! Live more, work less! When Mars had people on it, then she'd heed his advice. For her peace of mind and mild distraction, she collected sculptures, obscure ones. All else went to the wayside. Mars needed people. Even one person would do fine. Any life at all.

Dressed casually for today's big news, she walked alongside Jasper Stake, her father and CEO, toward subcontrol room SE 12. The results of the Barrier experiment were ready, although she suspected her father wasn't concerned. That had been bothering her for the last couple of months, as if her Dad knew something everybody else didn't. Nevertheless, before they went inside, she voiced support. "Cryogenic suspension is going to work. I just know it."

He stroked his goatee like he always did when he prepared a careful answer. "Cryo-suspension will not work on the Barrier. There is only one way to break it, and you will do it."

"What's that mean?"

"It means we are late," he answered, brushing off the question. A little shorter than she, he peered up seriously at Jessica. "After this meeting, I have something to tell you about your neurolepsy. We will not stay for questions."

"Okay."

"Good. Let's proceed. Heads up, no smile," he quipped and opened the door.

Room SE 12, located on the southeast side of Alaska Complex, wasn't a large room. Under normal circumstances, it was filled with tele robotic controls, but for the Barrier experiment, it had been specially fitted with TDX biotelemetry gear and an oval animation table. Three well-dressed VIPs sat around the animation table, seemingly bored and chilly. Jessica recognized all of them: Momar Zmora, a Namibian representative from Tomata Vanity Industries, Dr. Clare Bonnet, ClaimStake's senior bio-researcher, and Glenda Starling, Orbit Net's top documentary reporter, accompanied by her camera jock. She knew Mr. Zmora was sniffing around for Tomata Van, but O-Net's media trash stunk the worst. As usual, all the chairs were taken. A headphoned teleoperator noticed. "Here, one of you can sit here."

"No thanks," said Jessica, waving a hand. "We will stand." Then to Dr. Bonnet, "What are the results?"

A middle-aged woman wearing a cashmere sweater answered, "Negative. I can..."

Glenda from O-Net cut her off. "Does this mean ClaimStake will no longer continue to teleform Mars?" The O-Net camera turned on Jasper Stake to possibly suck up a juicy

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model for the documentary.

"Save your questions, Ms. Stirling," he said with ice. "Dr. Bonnet, continue for our honorable guest." He nodded respectfully at Momar Zmeri. Honorable guest? Jessica wondered about that. Dr. Bonnet keyed the table. "Last February, two independent spacers whipped off Splay Station toward Mars, totally disregarding the U.N. Multiculture Mission past scheduled for the following month. Then, 526,324 miles from Earth, both spacers died for reasons still unknown." Three-dimensional icons of Splay Station and the spacers' ship, connected by a purple mission line, appeared relative to the table's holographic Earth. Dr. Bonnet glanced at the camera. "Despite the media's sensationalism, the indie spacers were not murdered."

"Later, two Aussie spacers were assigned by the U.N. to retrieve the bodies. But 526,322 miles from Earth, not twice the moon's orbit, they died. Again, for reasons unknown. Telerobots eventually retrieved the bodies and ships. To this date, none of the four international autopsies have determined a cause of death."

Icons and scale lines of the Aussie mission flickered above the model table. Dr. Bonnet keyed another set.

Jessica noticed Tomita's rep whispering to O-Net's reporter. She watched faces for reactions. "Subsequent missions by different research bases," continued Dr. Bonnet, "using bacteria, plants, rodents, and monkeys were negative. Nothing lived past specific distances from Earth." More scale lines and icons appeared. "Data has shown that the higher the organism's cellular organization, the farther it can travel from Earth and live." Bonnet keyed the table, and a transparent blue sphere surrounded the Earth and its bright icons of failed missions. "Nothing living," she said grimly, "has passed outside this blue sphere. The biotic envelope, or so-called Barrier, was tested today. Until we determine exactly what is killing life, life will go no further than the moon and an orbit approximately twice that of the moon's." Nobody said anything, but Jessica noticed her father's bored face.

A holographic model of a cylindrical multi-armed, multi-axis robot came into focus opposite the Barrier model. Used to remotely mine asteroids pulled into orbit by sail-winchies, Crab miners were the backbone of ClamStake. "Crab One and Crab Two, modified by TDX Biotechnology, each carried two Lovett monkeys: one in cryogenic suspension, the other under normal life support.

"ClamStake's Crab robots slowly approached the Barrier limit." The table model changed scale, zooming in on Crab One and superimposing the monkeys' vital functions and brain waves slightly above the model. "As you all can see, one meter beyond Barrier, both monkeys lost heartbeat, their brains flattened. Cryogenic suspension had no effect.

"However, we reversed Crab one and two, bringing them back inside Barrier point, and immediately both monkeys came to life from clinical death. This happened every time. With both Crabs, the results were identical. Inside the Barrier, life. Outside the Barrier, death.

"The crabs are now Earth-bound to Splay station. Our data is on recordcard, available to anyone. Any questions?"

Before a clamor of questions broke out, Jasper said to Jessica, "Let's go."

They made for the exit. Using a covert hand signal, Jessica ordered the nearest telerobot to head off O-Net's reporter. She disliked media trash as much as her father, rarely granting interviews. "Where we going?" she asked curiously. "What about my ascology?"

"To the North Cafeteria, and I'll tell you." Patrons in the North Cafeteria were not surprised to see the CEO and VP stopping in for a meal. Jasper made sure he kept solid relationships with all his employees. Jessica was not good at this, although she worked at being a fair mediator.

They seated themselves in a booth. Jasper handed his daughter a small white box. When she opened it and saw a glass penguin with a purple square on its forehead, she blacked out.

EXCERPT: the covert recordings of Dr. Donald Kins aboard the Scarlet Berth, enroute to Mars

SAM: I vote to kill her.

KINS: Don't be ridiculous--

SAM: Ridiculous is hardly the word, Kins! She put the whole planet in jeopardy. Hundreds went to their graves because of her manic ideas.

KINS: You're missing the point.

SAM: That is the point. She could have--

JESSICA: Let him speak, Sam. Why shouldn't we throw her to the dogs?

KINS: In the first place, despite her changes, she is still a human being. She has done what science has been trying to do the last 150 years, on her own, smack in the face of convention. Her contribution outweighs her delusion. We've removed her ego; let's work with her--as friends and partners. She has a great deal to offer.

JESSICA: That's very utilitarian, but what if she doesn't cooperate? Do we hand her over to the government for trial?

SAM: Yeah, right, like that's not a joke.

KINS: For once, he's correct.

JESSICA: Granted, if she doesn't cooperate, we'll hold her until we organize the map. Then give her to her brother in Japan. Agreed?

KINS: Agreed.

SAM: Nay. Death is my vote.

Eight months later, Jessica lost her father when his shuttle collided with an errant crab miner. Rumors of assassination were quickly ruled out. It was accidental, point of fact. Nevertheless, ClamStake's chief of security, Samuel Staks, had taken it personally, even though no evidence, however minute, could be found to support an assassination hypothesis. Jessica could not find a way to relieve her brother's conscience. They began slowly drifting apart.

To make matters worse, the board was trying to push her out. CEO Jessica Staks sat in her office thinking about her father's strange behavior before his death more than the board's petty tactics.

Suddenly, something by the office door caught her eye. Wasps in Alaska? Jessica sprang from her chair, alarmed by the intrusion. Four of them flew in formation, one behind the other. They flew a zig-zag pattern over the couch, under the glass coffee table, circled the Madell sculpture--getting closer to her with each pass. She glanced at the security deck: no wave intrusion, no bio-alert, no tronic penetration, no missile launching. All read clear and safe. When she looked back, the black-yellow insects zoomed into a helix pattern around her petite body, close enough for her to hear them buzzing. But outright curiosity stopped her from pressing the panic button. What could they be up to? Several possibilities zipped through her mind, down dead-end paths of fears and reasons. Only one possibility went somewhere meaningful. A wasp broke formation and stung her on the wrist. Before she screamed,

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she tasted concentrated orange. The pain immediately ended her curiosity. She button-punched the intercom. "Samuel! Got up here! Now!"

Jessica quickly ruled out assassination: the wasps were too obvious. They weren't holodecks because her wrist had swollen to a thumb. She had spent most of her life indoors, and having never been stung, she did not think an insect sting could hurt this bad. That in itself kept her watching for another attack. Where'd they go? she wondered. Who had let them into the complex? Her competitors? No, they weren't smart enough to put a pattern on living organisms.

Her brother rushed into the office. He was opposite to Jessica in all the small issues—like his long, sandy hair to her chopped, black hair—but they were dedicated to their father's corporation, the major issue. "What's wrong?" he asked, pistol in hand.

"There are four wasps in here."

"Wasps on Point Hope?"

"They flew an organized pattern, Sam. Definitely not regular bugs," she said, eyeing the cluttered desk, the chair, the carpet. ClaimStake's security chief wasn't convinced, and she noticed. Temper colored her command. "Dump the Neanderthal tool and start searching. Now!" Sam reluctantly complied. "It's pronounced 'Neander-tall, not Neander-thaw.'"

"Do it."

After a futile search, Jessica ended up staring out her window. Water dribbled down the glass from the instant defrost. The special window had been installed per her request: she needed to see her interplanetary ships. Sam stood behind her with his hands in his pockets. She waited for him to break the silence, feeling no need to explain the event further.

"Modified insects," he said tentatively, "would have shown up too, especially wasps in these parts."

Jessica raised her wrist to show him the sting mark. "Then explain..." The welt had faded back to her pale skin. Premotion, more than fear, silenced her.

"Yes? Explain what?"

"Nothing, Mr. Stake. You're dismissed."

"Yeah, right. Do you have any last-minute changes for the board meeting?"

The man could be tactful when he wanted to, thought Jessica. He would not come out and ask her if stress had something to do with wasps. Simply, his indirect concern became a forced condition, a recent one. Lately, they couldn't find a way to agree on anything but the most important issues. Both disliked fighting over trivial issues like feelings. "No changes."

"I'll send up a bio-team with independent scanners. If wasps are in this office, they'll be found!"

"Do that."

After he left, Jessica moved closer to the window, utilizing the bright summer light to examine her wrist. Not a trace of injury remained. Only for a second did she doubt her perceptions; reality could not be tinkered with so easily. Who could make wasps that clever? She started to search for them harder, but decided to go with her feelings and let it be: somebody wanted her attention. Chasing who and why, she concluded, would not be practical at this point. The trap had already been sprung.

Tomorrow, the major shareholders would ask for her resignation from ClaimStake Telematics and Remote Shipping. She wouldn't let a greedy horde of shareholders ruin her family's dream of putting the first human colony on Mars.

But what would she tell corporate wolves about wasps and the daughter who failed to heat the Barrier? The feeling that disappearing wasps and the Barrier were related would not go away. She hoped the feeling wasn't desperation.

Jessica pressed her forehead to the cool glass and cast a dreamboat stare out to the muddy shipyard below. Only two interplanetary ships existed, each specially constructed to carry people and support direct land terraforming colonization. ClaimStake had spent a fortune on keeping I-Ship designs secret. No other government or corporation owned ships that could easily travel through space and planet-land holding thousands of people. The greatest constructions ever built, yet the board saw otherwise. Why not sell the technology? After all, no living organism could break the Barrier. ClaimStake's capital could be better spent. Earth is prison, they reasoned, profitable endeavors existed in other ventures. Nothing blinded vision better than greed.

Below her, in the machine yard, lay her father's legacy, her curse and his soul, in the mock and mire. Small telematics crab robots whipped to and plummeted from their orbital quarries. Their sonic booms grumbled from his grave and thundered in the corridors of her dwindling future. Sandpit-anchored laser pods diced asteroid chunks to sizable pieces for hovering ore car stages as neatly as Jasper Stake had discarded whimsical ideas to defeat the Barrier. Not one life form had broken it alive, nor had one good idea shipped by Jessica untired.

Down there, in the midst of human manners and mechanical glory, rose two mile-high I-ships—Red Orion and Scarlet Earth—ghost town empty. Meter-sized patrol robots combed their exterior hulls searching for Black Guillemot birds that, if permitted to, would build their nests in the nooks and crannies of ClaimStake's monuments to emptiness. Massive centrifugal launch cradles dwarfed the Alaska complex as her drive for Mars dwarfed her life. Hundreds of blue service lights twinkled and blinked like spectral eyes peering through the snow drift blowing off the titan ships. The Polar Easterlies were always cold. She traced a spiral in the window condensation, hoping always it wouldn't descend into a hollow husk of I-Ship technology or into the chilly hand of Jasper Stake. But her family's work would be wasted if life failed to break the Barrier.

Two eager-faced scouts broke her quiet worry. She thought to dismiss them. Instead, she left her office and retired to her sleeping quarters. They would not find anything. If the wasps defeated the scan once, they would twice more. Quite unexpectedly, her nose began to itch fiercely.

Not much occupied her windowless sleeping quarters; she did not splay on frivolous comforts. A bed, a garment rack, a dresser, a desk, a multi-media terminal, and a few other what-nots were all the furnishing she required.

Everything that had relevance to the Barrier muddled the space around the multi-media terminal. In disarray, to anyone except her, lay newsletter faxes, Rainbow reference cubes, project updates, and anything else that might give her insight to the Planet Barrier. Next to the laser printer was a Klein bottle, a gift from her brother, who upon presenting it said it was a reminder of another world outside her narrow one, not to be used as a functional art piece to monitor dust control. She loved the piece because it reminded her of the class that Sam was too stubborn to reveal often. She didn't find much peace in sleep. Dream reality for Jessica evolved into landscapes of houses—ranch, cottage, neomodern—talking to each other;

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skyscrapers were telling jokes, and her father flew by to scold her for wearing cosmetic make-up. She awoke, startled, paranoid about what the wasp sting had done to her. As usual, a dream fragment would escape to forgetfulness. This time, a neurochemical spotlight shone on an unfamiliar name: Donald R. Kins! Donald R. Kins! Donald R. Kins! An icicle feeling slid down her back. A dreadful unknown fear weakened her confidence. Going to medical seemed like a good idea, but she bit down on doubt and decided to research Donald R. Kins. Jessica climbed from colorful linen to don a robe and went to the multi-media terminal six feet from her bed. After power up, Jessica input Donald R. Kins into the public dossier search. Each key press sounded cap loud in her stealthy quiet room. CLICK. CLICK. CLICK. She pulled her legs up into the chair and in the screen's glow, fiddled with the media station's stylus.

Two sharp beeps: Donald Ray Kins, professor of Cellular Microbiology/Male, age 47/Currently tenured at Illinois State University, Normal, Illinois. Key to PERSONAL HISTORY, WORK, EDUCATION, ORIGIN, CREDIT RATING. She perused the information gleaned from low-security databases. Aside from Kins living in the same city she was born in, nothing else about him appeared connected with ClaimStake or the Barrier. Still, she could not shake his name from her thoughts. What did Kins think about the Barrier? Jessica decided to meet him in person and ask him how his name loomed through her mind.

Using Sam's Reservation Thief program, she illegally reserved a parking space on the University's crowded park-land by bumping another joppter. Then she left a wake-up call for Sam on his system, informing him that they'd attend Professor Kin's morning lecture.

Despite her itchy nose, Jessica had fallen straight into a dreamless sleep and didn't wake until her chimes alarm sounded. Faint cinnamon hanging in the air caught her attention, but not enough to distract her from the wasp incident. She would crack the Barrier or resign. She could feel it. The nervous twang reminded her of mornings before final exams when her exclusive tutors cracked their whips. Anything less than 100 percent was a failure.

She dressed appropriately for college campus environment: a light sweater, sandals, and jeans. Into her terminal intercom, she called, "Sam, are you up and dressed to go?"

She ran a comb through her hair, waiting. "Nope, I'm getting a suntan," cracked the speaker. "What's with this weird wake-up? You got a meeting today...you know you do."

"Postpone it until fifteen hundred."

A long pause. "The scanners did not find...anything conclusive."

"So what! Meet me on the joppter platform," she snapped. "Stop by the chow hall, too. Bring us some milk and a few of those cinnamon rolls...they smell great."

"What?"

"You heard me. In five." She clicked off. In the elevator to the seventh floor park platform, she wondered what fruits a visit with Kins would produce. Maybe she wasn't supposed to know of him. Maybe the wasps were the first sign of stress trauma that manifested in a nose rash. Jessica couldn't hide her red nose from Sam. Then possibly Kins was the latest in corporate tricks. The elevator doors opened to a trapezoid platform. Several parking bowls held two-seater travel spheres, called joppters by corporate executive types. Point Hope's perpetual day, deceptively warm, blazed through the

platform's solar-clear roof. Jessica tolerated the chilly North Plains climate, but she missed the night sky. Always, the stars were on her mind. No board members had yet arrived, she noted. All the better; she didn't need them underfoot.

Instead of having JESSICA STAKE - CEO stenciled on her parking spot, it read, SCARLET POOL. Her nickname was coined by ClaimStake competitors because she continuously dumped profits and building resources on a lifeless Mars. The nickname did not bother her. It did, though, drive her coworkers to worry-warts. A CEO shouldn't accept a jibe, they told her. The board would use that against her, too, in its own petty way.

"Stake - open," she voiced to the quarter door on her cobalt blue joppter. It swung upward, momentarily reflecting the sun into her eyes. Inside, the two-seater travel sphere smelled of potato chips. The subtle decay wrinkled her nose. Jessica felt startled. She could not deny it, her sense of smell had definitely improved. Her joppter had been cleaned the day before yesterday. She took the far-sided seat and fired up the system, trying not to think about what the wasp sting might have done to her.

Sam exited the elevator shortly after. She watched his approach, perturbed by his attire. He placed a cinnamon-reeking sack and two cartons of milk on the console dash. "What?" He sounded indignant.

"What's with the dagger eyes?"

"You're dressed for the Illinois weather, I see," she quipped sarcastically. "Khaki shorts work for you. The Harvard keeshirt is rude, but suitable for our visit. Everything is fine, except for your holster and pistol. Go get a wind-breaker, or lose the pistol!"

He didn't respond right off, he tied his long hair in a ponytail first. "The pistol stays. We're going into public. And if you had a life, you'd know how stirred up the college scene is now." He boasted the joppter, not once taking his clear eyes off his problem sister. "Until you tell me what is going on, you've nothing coming but a hard time. Furthermore, I sent in back-up to Illinois funeral last night. Got it?"

"And while you're boo-booing, I want to know why your nose is swollen red and how you can smell rolls through air quality control all the way to the kitchen. Got it?"

Being accustomed to his mannerisms, she didn't interpret his attitude the wrong way even when it irritated her. "I'm not sure about my nose." She wouldn't tell him about the sting. Not yet. "But I'm sure the wasps, this Kins, and the Barrier are connected." She recognized his expression. "Don't even give me that face," she challenged. She'd seen many different shades of it in the past months. Anyone else in his position would have resigned or assassinated her.

"What kind of logical response do you expect? You've been moping and slinking around. You don't see anybody...you don't go out..." he told her truth, anger's edge snapping his sentences into emotional bits. "The whole Alaska camp is fed up with you. This wasp thing is all over the camp." He pushed forward with an open palm. "This gives the board one more reason to push you out. Case closed."

Hiding her sad face, Jessica looked away to the Arctic Terns nipping scraps from the south-end recycle bins. He would not be ignored. He jerked a lock of her hair.

"Quit it, Sam!"

"Then listen to me," he countered. "You're driving ClaimStake into the ground. The perma-frost is more flexible than you...you're killing us, one day at a time, and father didn't give you that right." When he mentioned their father, she

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refused to let it hook her. "I know what I'm doing. Are you coming along with me or not?"

He didn't ponder long. "Yes."

Jessica finalized their spot by shutting the quarter door and starting a systems check in silence. Ribbon parachute, tangent/journey plot, sunspot index, and solar charge all read clear. Underneath the joppter park bowl, the exit iris opened to the Alaska air. The Thompson dipole gravity field enveloped the travel sphere, which made her nose itch like crazy. She scratched—ignoring Sam's gawk—and reached for a roll. Likewise, he opened his milk carton and turned on the heat.

The joppter glided from under the park platform to a hover position to await a wave guide from a Motorola taxi satellite. Fourteen miles south of Alaska Complex was Barrow, once the largest Eskimo village in the world. Now it was the largest teleming hub for three countries. As their joppter coordinated with Barrow's transponder tower, Jessica saw the vice president's gold travel sphere whizz by toward camp. She took some satisfaction in that. ClaimStake's VP didn't like postmortems.

EXCERPT: from Kinsu Tomita's resignation letter to the dean of Wisconsin Institute of Evolutionary Genetics.

...[T]he world population can be divided into various, major cultures: Eastern, Western, Islamic, Christianity, by race or economy, by agriculture or cyberculture, etc. Of the lasting cultures, at some point in their development, all worshiped spirits, or deities, or God. An atheist culture is nonexistent; although there are atheists, they cannot sustain a culture. From the very beginning of Homo sapiens, it has sought to worship a power outside and greater than itself. Stiff and vigorous opposition has failed to quell the Word of God. Natural selection cannot weed out this persistence of spirit, and cultures that have rejected God are extinct. Before humanity combed the Earth, its cultures lived in and originated in virtual isolation. Yet each clung to a religion. As Demasence said, "The knowledge of God is naturally implanted in all." Else how do the anthropologists explain polytheism in cultures that were isolated from each other in their beginnings? Even as science dawned, theism remains unscathed. God is with us all. a) All cultures have worshiped a power outside and greater than themselves. b) Most cultures originated and developed isolated from each other, none without ties in the spiritual realm. c) Therefore, God exists. God's signature is the DNA map of all life itself. He has revealed it to me. I will not permit a senior board of heathens to judge me. God will do that, and, ultimately, He will judge us all.

Jessica and Sam's joppter taxied above the crowded one-way streets of downtown Normal, Illinois. People packed every street foot, loud and protesting. Small media balls, neon bright, whirled over their heads, thoroughly covering the event. Protest banners hung off Mother Murphy's Casino and flapped in the breeze; slogans in English and Spanish scrolled across their hydrofluoric-treated silicon surfaces. Campus security stood on call should the protesters go destructive.

Jessica took a scan. "There's approximately seven hundred heartbeats down there. Are they all students?" she inquired, trying to read a banner slogan.

"Students for the most part, they're the principal instigators, but protests have been springing up all over the campuses. It started here a couple of months back. They believe ISU and the government are behind the abnormally

high rate of infertility, the standard sterilization conspiracy bunk."

"How is ISU connected?"

"Because of Cortland's haploid experiments. They think he's working with the White House."

"Well, is he?"

Sam asked. "Like I wouldn't tell you if I knew something like that? Give me a break."

Jessica didn't believe the government would covertly initialize or maintain a sterilization program. The White House would fist out do it and dare anyone to care.

As their joppter passed over the crowd, her heart went out to the protesters wrapped in rue. She often regretted choosing her father's strict teachings instead of going to college.

Three tones from the joppter dash signaled preliminary docking. Jessica and Sam locked their swivel seats into place.

The campus rooftops grew in detail. Four building-tall parktracks annexed the quad drop-area. A green strobe, mounted next to each parktrack's light-beam receiver cone, flashed brightly, indicating automatic systems were uncongested. From her vantage point, ISU's parktracks looked like monolithic briefcases occasionally discharging colored pinballs. She didn't care for 'racks. They were hard on her travel sphere's paint job. Standby ended in two tones and the joppter entered a smooth descent. After docking, they exited their vehicle into the parktrack's busy tunnel.

"Where to?" Sam asked impatiently.

From her research, she had memorized the route to Kins' lecture room, but doubt had crept on her faith. Maybe he didn't even exist, except in her head. "Follow me," she answered and headed to the mappole. A second later, her doubt seeped away. Professor Kins was teaching today.

Getting to his lecture ended up more like a hike through a war zone than a leisurely stroll. Sam persistently made her feel conspicuous. His head gawked and bobbed and craned for danger, worse than a sentry robot. The old hallway they traversed could have been a ghost town, yet he persisted with his over-cautious tactics, crowding her between the wall and himself. When he got too close, Jessica elbowed him in the rib cage. "Step it!" she hissed. "We are not behind enemy lines."

Before Sam could respond, they rounded a corner, and Jessica collided with a curly-headed youth. The student's surprise canceled his manners. He zoned right in on her face. "What an ugly red nose you have!" he jabbed.

"Beat it, punk!" Sam lashed, stepping in front of the student to usher Jessica into the noisy lecture auditorium.

They took a seat in back, on the highest tier. She felt relieved that only a few students gave them a second glance. Yet, a tense feeling radiated from the class, not the eagerness she expected from a Freshyouth class. These were not the faces of eagerness, but resembled the fear she had seen in her corporate circles—fear of failing. Pressure pulled the students' skin taut across their cheekbones, the pressure of few options in their future. There would be no place in their world for the uneducated: the technically unskilled died early. Desperation had a smell as well as a face. That smell sharpened when the spindly professor entered the lecture hall accompanied by a silent pall falling over the class. The thin, casually dressed man did not squander a moment. He jumped right into the thick. "This morning we will cover the cellular organization of interdependent, interrelated parts of eucaryote cells and their parasitic origins." He flicked open his remote pointer. "We will begin with the energy-producing mitochondria organelle of animal cells."

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Professor Kins keyed his pointer to dim the lights. Ten holograph-projection rods were strategically located in the lecture hall, lending visual access to all in attendance. An ovoid-shaped bulb-like cell appeared above each rod on a cone of dimming blue focus lasers.

WITHOUT WARNING, JESSICA LOCKED ONTO THE MODEL. This was not part of the lecture! Someone had gotten in her head like a drug had taken over her thoughts. She tasted raspberry and thought of fruits and vegetables. The halo model acted like a three-dimensional mnemonic that triggered her memories. Everything in her peripheral vision faded away. Sound, too. Her thoughts turned inward.

Physical paralysis overtook her body as hidden memories became unblocked. She could not move. Fear did not have a chance to send her into flight. Struggling gave way to fascination, awe. As if someone had pulled off a sheet that hid a magnificent sculpture, the dead dome, she couldn't prevent herself from appraising it. Her memories unfurled. Subconscious symbols took shape. Fundamental rules of all biotic life on Earth filled her thoughts. Symbols began corresponding with her familiar memories and were cross-referenced chemically with her food memories. The fundamental levels of organization came first: Subatomic particle, atom, molecule, macromolecule, subcellular structure, cell, tissue, organ, organ system, multicellular individual, community...

...cell specifics. A blue, liquid-like cytoplasm filled the ovoid cell, contained by a mosaic cell wall membrane. Inside floated its many complex living parts...

...The DNA-rich nucleus resembled a knobby pumpkin wrapped in a cellophane-thin porous nuclear membrane; the nucleolus, off-center, no bigger than a grapefruit floated the nucleolus responsible for ribosome manufacture. Draped partially off the pumpkin-sized nucleus clung a chunk of layered, winding rough endoplasmic reticulum that transported, highway style, polysomes to the smooth roads of the endoplasmic reticulum, then to the Golgi body. The Golgi complex stacked up like different sized pancakes; it packed proteins for cellular export, sorted, and stored molecules...

...Through the cytoplasm swam red sausage-shaped mitochondria, complete with their own sets of DNA. The cells' mobile energy producers... More information bloomed in Jessica's consciousness, more than she could handle, as if someone had opened her skull and poured in soapy water to clean away the dirt and expose shiny new memories of biology. She tried to break her mind free, and failed.

...mitochondria organelles trapped the energy released from food breaking down. Thousands of mobile power plants using glucose/food to produce ATP/electricity...

Jessica tried to focus on her brother's face, and it faded to the cell model.

...DNA was a set of blueprints for designing a building stored in each room of the building. DNA molecules build proteins...

Jessica tried to picture herself shooting the cell, but that failed, too, and triggered a weapons reference sequence.

...Lymphocytes set free antibody soldiers which attack bacteria and viruses, followed by phagocytic cell sharks that consume the body's invaders...

Jessica thought of her father.

BLACKNESS CAME AS A COLD SLAP, ENDING THE MEMORY EXPLOSION. Reality slowly returned. Someone chewed on a pen cap, she tasted strawberry. Dread

came, too. She couldn't understand what had happened to her. Hands! Thousands of purple hands calmed her, soothed her anxiety. Then an old, familiar feeling crept up on her. She blacked out.

Jessica regained consciousness in a small office, but finding herself on the floor didn't bother her anymore. Narcolepsy had seen to that. Chair legs were the first things her vision focused on. "Where are we?"

Sam knelt beside her. "Hold, Sis," he suggested, not letting her up right away.

"No. Get me off this smelly carpet!" Keeping quiet, he helped her into a leather chair. After her disorientation passed, she asked again, "Where are we?"

He took the remaining chair. "Kins' office. He's dismissing the class now. You started a ruckus when you passed out. What happened to you out there?"

"I don't know. Did Kins tell you anything?" she asked, also asking him with a hand signal if it was safe to talk.

"Yes, we can talk safely, but Kins didn't tell me anything, so you gotta tell me what's going on." She checked out Kins' office for anything unusual. Charts covered the wall—a periodic table, a graphic poster depicting chemical evolution, plaques, degrees. Shick trade magazines and books packed two walnut shelves in disarray; anti-listening electronics, more security, computer gear, and a rubber model of a red blood cell sat next to an ugly coffee cup, but nothing as weird as her thoughts. Lysosome, centriole, germ cell, and other cellular terms whirled through her mind; thoroughly surprised, she understood them. "I don't know what's going on, Sam, truly. It's like waking from a dream, except I vividly remember cellular microbiology," she answered cautiously. "I'm worried. Somebody got to me."

"That wasn't a narcoleptic spell?"

"No." Sam encouraged her. "Wasps cannot disappear, I told myself, but what if they were made to look like they did? So I had the scanners test for substance instead of shape. Comic found four minute traces of DNA. We are still not sure if the DNA belongs to insects. Though we will be by the time we get back to camp." He gently poked her in the arm. "I assumed you weren't nuts. If not, that means the bugs broke our comm. There must be a mole in our system because I'm thinking the wasps dissolved some way."

"Good initiative. Somebody definitely had insider's information," Jessica stated sincerely. "You thought I stressed on the wasps, didn't you?" No lies in his face.

"Yes, a little maybe. I'm your brother, not your robot."

Jessica tilted her head back. "I smell Dr. Kins coming."

"You what?"

She straightened up, crossed her legs, and masked any revealing expressions. "Stand up, Sam. Give him an option to sit down in his own office." Dr. Kins entered, then locked the door. He had that know-something-everyone-else-doesn't look about him.

Jessica appraised him. His skin was African dark, stretched over a thin frame; his casual clothes were expensive, his grayish-black afro was conservative-short, and his face seemed to be locked in a permanent scowl of meanness.

"We can talk," said Kins. "Eavesdroppers are not welcome around here."

"For a teacher, your in-room security is most expensive."

"What can I say...I'm a multi-income kind of guy."

When neither Jessica nor Sam spoke, Kins addressed Jessica. "My Micro Teachers hit you pretty good. Sorry. But I am glad you kept your appointment."

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Sam folded his arms defensively. "What do you know about it?"

"With your father's permission, he let me code your brain's learning center with a lifetime of bioscience and insect behavior, but we will trigger those memories later. That's all I can tell you now. The Teach technique is known only to me. That classroom holograph is one of the 3-D mnemonic triggers," he said without one trace of empathy in his voice. "The process of coding your neurons takes an extremely long time. Not to mention that the Micro Teachers are my life's work."

Jessica surveyed him coldly, not letting any hints through her mask. "I do not believe you."

He pointed to a shelf behind Sam. "You will, kiddo. Sammy, hand your sister one of those hardcopy trades."

Sam did not move.

"Give me one, Sam, let's give him some," she requested.

"Pick any article and read it," Kins quipped. "See if you can understand it."

Sam handed her *Cell* magazine. Kins, she thought, was awfully cocky, and his weird manners were starting to get on her nerves, but she randomly flipped to an article on blocking neurotransmitters. "Have a seat, doctor," Sam pushed the remaining chair his direction.

"Good grief! A free thinker."

Sam would not be goaded.

As Jessica read, no one spoke, although Kins hummed something stupid.

She felt a chill. The technical jargon in the article made sense. Understanding came as easily as if she were reading from the Unified Commercial Code and Orbital Statutes. She would neither finish reading it, nor let Kins, who watched her intently, see her anxiety. She tossed the journal into the trash. "This proves I have been affected, nothing more, because your alibi depends on a dead man. I need reliable, testable verification."

"And you're going to get it," he countered. "How much do you know about Taiso and Kayoko Tomita?"

"A standard profile. They founded Tomita Varsity. They were assassinated some years ago, and their son controls TeeVan. My father conducted a few minor business deals with TeeVan."

"Not minor! Jasper was good friends with Taiso and Kayoko. They were scientists of vision. Jasper agreed to provide mechanical technology to complement TeeVan's biotechnology. Together, they had planned to land the first massive colony on Mars and beyond, way before the UN got involved."

Jessica and Sam spoke almost simultaneously. "We knew nothing of these plans."

"Just listen!" he cracked. "Kisu Tomita, their daughter, changed those plans by assassinating her parents. She is, in her own right, a brilliant geneticist who had the best teachers in the world. Like a fool, though, she conducted radical genetic experiments on herself. Thus we know for sure." He spit out the words like he hated tasting them, then he softened his tone. "Your dad and I go way back, Jess. You know, we built the Santa Cruz cabin for your mother before she died. They loved you both tremendously. When Jasper learned—possibly from Kisu Tomita's brother—that she is behind this epidemic of infertility, he also discovered she wants you for her scheme. Evidently, she has a plan for the world, the human gene pool specifically, and it seems you're part of it."

"Of course, this frightened Jasper to no end. He sought

me and the best way to prepare you for Kisu Tomita. She's got to be stopped. I personally believe she wants more than your ships."

"Then take her out of the game!" offered Sam. "If we were to give in to the thug point of view," he said, jabbing a finger in Sam's direction, "then you might kill the only person who knows how to reverse the infertility epidemic. Tomita, at least, is seventy-five years ahead of the rest of us. She predicted the Barrier six years before its discovery, and nobody took her seriously. Now she has as over one big barrel, everybody, if we cannot knock her down a level! "Kisu has the entire genetic map for Homo sapiens. We got about two-thirds mapped out, but were missing too many pieces. She got them first, and she knows how to apply her knowledge to her desires," Kins said with conviction and some hope in his eyes. "You're our best shot, kid."

Jessica expected a scathing retort from Sam, but he said nothing. Neither did she. Kins must have felt their judgment because he squirmed in his seat and kept talking as if nothing were wrong. "Tomita has only one weakness: her planet-sized ego. If she has her sights on you, then you can probably get close enough to her to steal the genetic map. And your best weapon against her is knowledge."

"You should be shot, Kins," Sam said intently. "I'll be more than happy to notify the Centers for Disease Control."

Jessica heard control in Sam's voice, and studied Kins for his reaction. He frowned.

"No one knows Tomita is responsible except us and two others. If the CDC learns who, then the world learns, too. Every two-bit intelligence agency will go after her, which will run our opening."

"Personally, I believe she infected people with a variety of micro-encapsulated viruses. Kisu had access to the world's largest cosmetic company and several subsidiary food distributors, too. Her operation is global. No other way would be feasible, although the Disease Control Center does know a retro-virus has managed to turn off a gene complex responsible for coding Acrosome. It's a corrosive-like enzyme in the tips of sperm cells. Without it, human sperm cannot effectively penetrate the egg wall. Males are shooting so-called duds; the problem is, we cannot find the gene sequence responsible. In vitro works fine, but I believe she has gained control over the whole reproductive system, and before long, nothing will work. We must stop her now."

The word 'we' irritated her. Not to mention who knew the truth or what the truth was. Tomita would have to answer to that. Catastrophic events followed a nasty rule: in business, they came hard and fast. This she knew all too well. She wouldn't make any immediate commitment or jump to a conclusion based on Dr. Kins' story. Between the truth and Tomita, she decided to focus on the latter. No doubt in her mind, Tomita would be put under ClaimStakes' microscope. Hiding any interest, she redirected Kins. "The Barrier, Dr. Kins, tell me about it, and stop wasting my time."

He looked hurt, but told her. "The current experimental groups are approaching the Barrier problem from the wrong angle. Life can pass beyond the Barrier, but it can only pass Earth's bio-envelope in groups."

"My experiments will prove a relationship between distance traveled from Earth and the number of organisms. Send one Norwegian lab rat past the Barrier on tele-Crab minor and record at what distance it dies. Then send two rats out, ditto. The distance will be twice as far; three rats, three times as far. Before long, we will be able to land a group of rats

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rats—or people—on any planet of your choice.

"No other way, little Jess. All the social species are colony-based, right down to groups of cells in a symbiosis. Life cannot exist in isolation from other life.

"We can observe the Barrier more closely in social insects; they have their own Barrier here on the planet. Ants take slaves, launch armies into war, domesticate aphids like cattle, cultivate fungus, hell, we've been studying apes too much.

"And if we separate a white ant, or what Sammy here would call a termite, from its colony, it will die. Just give up and simply die. Same with people separated from Earth's bioenvelope—too few of them, and they die. That's why we don't see many hermits in the world; isolationists can't make it in the gene pool. Building on the moon and in orbit is pushing the limit. Even on Earth, isolating a human has drastic effects. Biologists have been kicking this idea around for awhile now.

"If I could use your corpo-labs, I could publish my results by the end of the month. This would also remove any suspicion Tomita might entertain concerning my relationship with ClaimStake." At least part of Kins' story, the technical part, could be checked into, thought Jessica. To her unsettling worry, she believed Kins told the truth—she could smell it—and inside, she hoped, more than anything, that her father was not part of Kins Tomita's alleged scheme to sterilize people. Not knowing the rules worried her, too. Slowly, she could feel her control slipping down into anger, a deadly state to people in her position. The good professor, she decided, would need to be placed well within her sphere of observation. "Mr. Kins," she said, standing, "when can you come to Alaska Complex to conduct your rat experiment?"

He grinned like he'd won something. "Anytime."

"Now sounds good," Sam insisted politely. "I can have a jopier here before you can arrange for a substitute teacher."

"Kiddo, a jop ride would do nicely," he replied, his voice tainted with sarcasm. "As a bonus, Miss Stake, I have a message for you from Jasper, but I can only give it to you in your Alaska office."

"Okay."

Kins stood and clasped his hands. "See you tomorrow then?"

Sam stepped around Jessica to Kins' desk. "Yes, you will, doctor." He then picked up the cell model from Kins' desk and popped off its side. He twisted out a recording cube. "Because your security system is the most expensive doesn't mean it's the best. I'm sure you won't mind me keeping this taped recording, kiddo."

"It's not what you think. I keep accurate records, in code, of course."

Sam put on a disgusted face. "Keeping records might get you killed, Dr. Kins."

"Don't summarize your hypothesis with arrogance, smarty. My files are well-kept. To be sure."

EXCERPT: from Dr. Kins' audio record. Conference room, aboard Scarlet Birth.

SAM: I vote to keep the map within ClaimStake.

KINS: I second that.

JESSICA: That's new for you and Sam; what happened to your scientific responsibility?

KINS: Don't disrespect your mentor and your elder. This is the responsible decision. We can't dump the map into public domain. It's too much, Jess. Look what happened when one person used it. Can you imagine what a government

would do with the control sequences? 'Here, have a shot from this hypo, Mr. Republican, and be a Democrat.' Things got out. That's bad enough. We have already changed our universe, our world, in a day. Let's take some time and reflect.

SAM: He's right. Nothing important stays secret. It will take at least eight years for anyone on Earth to build an l-ship capable of defeating the Barrier. We can start by sending the Micro Teachers' knowledge back to Earth. There's time to spare.

JESSICA: I think we're making a mistake. The people have a right to know what happened—what was horribly inflicted on them, on us!

KINS: They will now, but let's give Earth some time to settle down. We need to think this through. After all, we have been subjected to evolution our whole history. Now, we can control evolution.

JESSICA: Just who is "we"?

SAM: The same "we" that made atomic weapons and cured cancer. This map will start another arms race, but "we" have gotten this far down the road to whatever or to whatever humanity is going. I say we wait five years and ask ourselves how much knowledge we let back to Earth. Agreed?

KINS: Yeah.

JESSICA: Okay, agreed. We discuss this again, but with Tomita, if possible, and three other senior members of the Hive Colony.

Throughout the whole return trip to Alaska Complex, Jessica listened to Sam hatch plots. When he learned of her extrasensory nose and the wasp stinging her, the plots got blacker. He insisted that she undergo medical examination immediately. She agreed. Back and forth, they bartered over ideas and suspicions. At journey's end, they could only agree on three items: unusual wasps had broken ClaimStakes' security conn, someone had secretly planted knowledge in Jessica's head, and Kins was involved. Tomita remained one big question mark. They needed Tomita's input and more information. Before they landed, Jessica put Kins Tomita under the electric eye, a privacy invasion globe. Not much could escape the PIG sensors.

Later on, Jessica met with an irate board. Hostile meetings weren't new to her. She explained the conversation between herself and Kins, minus the parts concerning Tomita. Her argument won enough time to convince the board to reconvene the following day when Dr. Kins would be present to answer questions from ClaimStakes' in-house science consultants. Some chancy compromising was required on Jessica's end. If Kins' experiments failed, she agreed to stop telebotonic terraforming on Mars and divert funds into Earth-bound and orbital projects. It beat resigning.

The next day, Jessica's medical examination showed infection by trypanosome, an unidentifiable strain. Apparently, according to Dr. Bonnet, this microbe wasn't causing the fatal effects of *Trypanosoma gambiense* or *T. rhodesiense*. More time would be needed to explore the mechanisms involved with this new species of protozoan. Jessica expected as much, feared it. Dr. Bonnet was equally puzzled by the sensitivity in Jessica's nose. More experts would be called in to investigate. No time for that now, she would not sit around squandering time on how she could smell better, but why. She felt vulnerable and ordered Dr. Bonnet to load an inhaler with a suppressor formula that would turn off the smelling receptors in her nose. At least the itching and

redness had subsided! Following the medical grill, Jessica convened with Sam in her office. He wore leather pants and a baggy silk shirt; she, slacks and a pattern-shifting blouse. They both displayed stressful faces: bloodshot eyes, intense furrows of question, worried looks. She sat down behind her desk and rubbed her sore arm where the doctor's needle had poked her. Sam sat to her left, engrossed in PIG information. Neither spoke. Outside, heavy rumbles from an asteroid cruncher reassured and relaxed her. "Is the PIG scan ready?"

"No."
Next, into the intercom, she said, "Have Dr. Kins escorted to my office."

While waiting for Kins, she powered on the multi-media terminal and browsed through the preliminary PIG report.

Professor Kins entered, wearing an orange visor's non-VIP jumpsuit. Without invitation, he seated himself next to Jessica's Greek sculpture. "I did not think you miner execs lived this comfortably. It's downright warm in here."

"Modern convenience," carped Jessica.
Sam leaned back in his chair. "Tell me, sir, what file do you have on Kisu Tomita?"

"Just what I told you and what's in this velvet pouch." He held it up, letting it swing back and forth. "Now I'd like to know why Jess had a red nose yesterday, and not today."

"A minor nose rash, Dr. Kins."
"Really? You know I will need to thoroughly test the effectiveness of my Micro Teachers. Quick, can you name me a fast enzyme important to mammals?"

Jessica's first thought was to ask him how she'd know something like that, but the answer was there, right in her thoughts. It clicked, "Carbonic anhydrase."

"Very good, but my tests will be harder than just trivia questions."

"Time to cut to the quick," she said before another tangent veered off to trivia. "Are you ready for today's meeting, and do you have this alleged message from my father with you?"

"Yes, squared. Do you remember the day when Bonnet ran the Levret-cryo experiments, the same day you passed out in Northside cafeteria?"

"I remember," she responded.
He handed her a small green pouch.

Jessica opened it and pulled out a glass penguin with a purple square on its forehead. She tasted strawberry, crisp and sharp. No warning, no preparation, she remembered. The tactile mnemonic triggered a memory, unlocked it. SHE WAS BACK IN THE CAFETERIA WITH HER FATHER.

Jessica picked up the glass penguin. "Beautiful. What's the purple square for? Imperial conditioning?" she asked jokingly.

"Interesting literary reference, but that was a diamond, Jessy," he answered quietly. "This is a mnemonic trigger, never mind that. I want you to know, sweetheart, you are a natural pioneer, and I—your mother did, too—love you and Sam. You're my blood, and I fear that I have gotten you into something you have no choice but to accept. The genetic arms race is starting to pick up speed. Unfortunately, ClaimStake has joined it. I cannot give you any guarantees, either. I'm sorry," he said so low that Jessica had to strain to hear.

"Thanks, Dad, but I just want the corporation."
He smiled. "You shall have it, too. Hopefully, you will never remember this conversation."

"Why wouldn't I?"
"Be silent and listen." He took off his wrist computer and placed it next to the sugar dispenser. He engaged the privacy

veil, its shiny envelope enclosing them. Odd, thought Jessica.

"Dad, why don't we go into your office?"
"Because no one would expect covert behavior in Northside, Jess. So pay attention. If you remember this, I will be either dead or incapacitated."

"In your future, a woman named Kisu Tomita will contact you by insect."

Jessica didn't try to hide her puzzlement. "Insect?"

"Just listen. I have set a file in our security cone under Leth Kubba to permit Kisu's penetration. The file is routine in appearance. She must believe that she is beyond our capabilities. It feeds her ego. When you meet her, you must not allow her to know of your knowledge of bioscience, especially genetics. Her brother has helped us, except he failed to get next to her. Never contact him through electronic communications. "We know that Kisu wants you. Possibly, she still wants to honor her parents' agreement with ClaimStake. Exactly why," he confessed, "I don't know."

Jessica felt thoroughly confused. "What agreement? Kisu Tomita? As in Tomita Vanity? Dad, you're not making sense."

"Quiet. Dr. Donald Kins will update you on the Tomita clan. He's kept his views of her hidden well, but he doesn't know everything."

"For right now, your brain is the safest place to store information. Two other women, Roberta Sue Jenkins and Martha Patterson, each have one-third of the genetic map for Homo sapiens in greater detail than the Columbian Human Genome Project. Neither woman is aware of this; only you and I know their names. You may use a picture of a polka-dotted seagull, super-imposed over three-input NAND gate schematic to trigger their memories. "Unfortunately, Ms. Tomita has figured out the complete genetic map for Homo sapiens, and all the control sequences. You must get her database on the control sequences. We can figure the rest."

Jessica placed the penguin on the table. Carefully, she asked, "What am I supposed to do? Suddenly become her pal and nonchalantly ask her for secrets her own brother couldn't secure? What does she want with me besides our I-ships? I wouldn't know a DNA molecule from an RNA molecule."

Jasper folded his hands, and the grimmer look Jessica had ever seen graced her father's face, pinching her feelings like rusty scissors.

"You do not have narcolepsy, Jess. Dr. Donald Kins developed and modified a protozoan organism - Trypanosoma gambiense - which transfers information directly to your brain's neurons. Trypanosome is a natural at circumventing human immune systems. Instead of making people sick, Don reprograms the protozoan to teach. Each organism carries approximately forty pages of text. "I have been injecting you since you were a little girl. The Micro Teachers work slowly, but Tomita's grasp reaches far. She has taken our children, and you must get them back. Your tutors have given you discipline, and Dr. Kins will teach you comprehension of the wide field of knowledge that's encoded in your brain. Listen to him." A sickening hole opened up in her stomach, a deep, dark pit. All of the respect and love she held for the short, lovable man opposite her fell into the pit, screaming betrayal. On her left hand, a white scar ran over a knuckle. One she'd gotten after a blackout fall. How many more white lies could her body attest to? How many scars did she have from suddenly passing out and falling? She rubbed the one on her knuckle, and for the first time ever, she despised the mark. It

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sent a chill through her as easy as polar wind did. "...taken our children..." What did that mean? One shivering possibility surfaced. "What have you done to Sam?"

"Nothing, sweetheart, high testosterone levels scramble the Micro Teach information," he answered in a flat, academic tone. "Donald Kins has sacrificed his life's work. His Micro Teachers will change the world, but not a world empty of children. His bitterness is expected, Jess. Trust him and keep him safe. You have only three allies: Samuel, Don, and yourself."

Jessica had stopped listening. "I hate you for this." Real pain shadowed his expression. "Yes, Jessica, you should," he said. "And the world will cherish you." He picked up the penguin and showed the bottom to Jessica. She saw a tiny purple hand.

BEFORE JESSICA COULD REACT, SHE TASTED STRAWBERRY....

"Sir, what's happening?" asked Sam. "You are white as a ghost."

Pure dread and vertigo made her high-headed, so much that she had to grab the desk to stop herself from falling out of the chair. As if she had traveled in time back to an awful moment, that memory dragged along its frightening feelings. Out of anger, she smashed the penguin to bits. She wanted her father present so she could finish venting her rage. His cold grave prevented that. He was dead and completely unaccountable for tampering with her life. She would neither comply with nor assist any scheme until she sorted out the lies. Then she would deal from a position of strength.

To Sam, who stood close by her, she said, loudly enough for Kins to hear, "Samuel, has the PIG team scanned yet?" "Negative."

"Good. Put them on standby until I give the green. Double information security, phase 4. Don't bounce anything: have the field tight-beam all data, and use my personal courier-jep to transport. Stay passive! Let Tomita come to us, then we will put her under the eye," she ordered, not letting any uncertainty show. "In less than twenty-four hours, I want a tactical nuke on line. See to it personally, Samuel. While you're at it, call up a file under Leth Kubba. Test it for a mole. Is that clear?" Sam didn't bat an eyelash. "Clear as a glass penguin."

Then she approached Kins. "You will accompany me to the meeting and present your rat experiment. Speak nothing about sterilization."

"Can I get out of this stupid jumpsuit now?" he asked, pulling at the collar.

"After the meeting." She headed for the door, but Kins blocked her path.

"Stake, you better know what you're doing with your nuke."

Jessica gave him what she hoped was the most disgusted look she could muster and said, "You're no one to talk."

Maybe she saw guilt in his face, but she was certain she smelled it.

"Let's go." Over her shoulder, she said, "Sam, have Quarters prepare Mr. Kins a room for his stay."

"Got it."

Three days later, Kins Tomita sent Jessica a simple fax: MISTRESS STAKE, COME TO MY RIVER HOME. WE SHALL DISCUSS A WASP STING AND NEW ORDER. The fax implied that Kins and Stake Sr. had told the truth, which helped to soothe her anger, but not the terrible burden

growing malignantly on her conscience. What if I cannot get the information to reverse the sterilization plague? she thought. Who will stop Tomita then? Jessica needed time and hoped for the sake of many unborn that she could live up to her father's expectations.

After the easiest meeting she could remember, Jessica grabbed a mug of coffee and headed to her office. Sam sat behind her security cone, picking his teeth and talking on the phone. She sat next to him. "Talk to me." He cupped the receiver. "FI key."

To see better, Jessica swiveled her multimedia screen around and keyed FI: A dialog window opened under a picture of an Asian featured woman: Kins Tomita, age 47; Hair apparent to Tomita World Vanity Industries, headquartered in Belo Horizonte, Brazil/OCCUPATION: None current (resigned from senior researcher position at Wisconsin Institute of Evolutionary Genetics)/Status: Beyond wealthy 2.145; one living brother; no marital contracts; no public sighting for last 5.4 years/CURRENT RESIDENCE: Lovelock Castle, Elmhurst, Illinois/MARKET ACTIVITIES: Zero last 7.9 years/WARNING: Black Conn security enforcement. Shift FI for preliminary PIG surveillance....

Jessica sipped her coffee, ignoring the pain in her nose caused by the coffee's aroma, and contemplated the soft, small face of Kins Tomita. The photo appeared to have been taken at a function of sorts. She was elegantly dressed. Jessica zoomed in on the picture. Tomita's face captured a wide smile on her oval face, and her eyes gave no hint of malice. "What do you want from me?" she asked herself in a whisper, in a thought. "Who the hell do you think you are?"

She shifted FI to call up the PIG video. Tomita's picture folded to an icon symbol, and the screen image flipped to video mode. The screen filled with reconnaissance footage taken by the PIG team. Super-imposed over the video were information markers that described the environment. Small, cyan blue words dotted the screen.

The Privacy Invasion Globe was a soccer ball-sized hoversphere, similar to a media ball, but it had a longer remote range and a wider array of sophisticated instruments on board. PIGs were illegal in the private sector, mere or less.

Jessica pressed replay, and the PIG cruised above the Mississippi River (Information Marker: altitude twenty feet). Sheer rock bluffs hung over (IM-Alton Bluffs) a shore of an asphalt road.

Jessica didn't care about local details, so she toggled the information marks to dialog box. The PIG slowed to scan a shanty river float of twelve obsolete barges bolted together in a hodge-podge arrangement. There were two huge red cranes dangling over the sides. Guy-wires which were strung off the cranes held up particle board and plastic-patched roofs. Shanty-floats supported a few bandits, but mostly the homeless who eked out a living cleaning up polluted sections of the Mississippi River in exchange for food and locks passage.

A scraggly man in a tiger-striped, bullet-proof poncho discovered the PIG snooping, and he took a few shots at it. Jessica wondered why the PIG team had taken so long to scan a shanty-float. PIGs were too expensive to risk potshots. The PIG team had gotten the message, though, and cruised its PIG four more miles up river to Lovelock Castle. True to the word, Kins Tomita's home modeled a James of St. George castle, constructed right on the bluffs. Three pennants bearing Tomita logos blew in the wind off the east corner tower. Built on the ruins of Principia College, Lovelock cast its decadent shadow onto the Mississippi. The only clues that broke it from

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its medieval mold were the satellite dishes, lowlight solar collectors, and the Black corn sensors. Two antimissile grids tracked ClamStake's PIG, which tenderfooted just outside Lovelock's scan perimeter. The grid's abrupt movement sent a flock of birds into flight from their roost on the southeast tower.

The replay ended, faded, and was replaced by a menu window.

Looking up from her monitor, Jessica asked, "Where's our PIG team?"

Sam had ended his call and sat fiddling with a monitor scyllus. "They're down river, at the Martin Luther King Bridge; the PIG is grounded on the west bank, smack across from Kisu's wonderland house."

"How many people are in there with her?"

"She's alone. Nothing comes or goes: no maintenance, no food delivery, no activities of any kind."

"She owns all of the land you saw in the PIG replay. All of it behind the bluffs, too. Her parents bought the town of Eliah and tore it down—nothing major, though, Eliah wasn't a stone's throw. Sentry Bad-Bats cover her grounds. It's all standard tough except two stems," Sam said, leaning close to his sister. "Every month, shanty floats bring her ten-twelve cows. Tomita remotes them off the river to her rock and gives the shanties two scrubbers, medical and what-not...they make a big thing out of the cow deliveries. Dumb shanties think Lovelock Castle is alive. And..." he tossed the stylus to the desktop, folding his hands snugly behind his neck. "Tomita's Black corn has a weakness."

That sent a ripple of surprise across her face. "You wish, kid?"

"No wish. Tomita has a loft of Racing Homer pigeons. The pigeons fly outside of her perimeter scan on a regular basis. We can modify a PIG to catch one, attach a couple of deactivated Speers con-jammers to the bird, and let fly. When Mr. Homer returns to roost, we'll be inside. I can dump her security-haze to an off-site cache and then tight-beam her antimissile grid long enough to take it out with armor drones."

"Bank on it, sis."

"I consider it an option," she said, seriously. "Did you investigate the Kubla file?"

Sam frowned. "Yes. It does appear to be Dad's program style. The mole would have screened out a thousand wasps. Only Dad had access like that to the core. So, how are you holding up, Sis?"

"From fair to awe. Kins' Micro Teachers worked well. He told me there wouldn't be anymore blackouts. He's an excellent tutor, too. Biology is a whole new world. But I hate being thrown into a mess if that's what you're asking. I'm scared."

"Dad really dumped on Sis," said Sam with a trace of bitterness. "I don't think I could forgive him that. Don't worry, we'll crack Kisu. She obviously wants you to join up. That gives us some leeway. If she doesn't know about Kins, then she'll just think you're another power-hungry administrator. Your best shot is getting her on our turf. Play her ego. It is imperative, Sis. You must get Kisu to come here. If she believes you're under control, then we have won the first battle."

"We have two advantages: Kins is terribly alone, and she needs ClamStake, if only for protection. When you meet her, she'll tempt you with something we don't know about yet. Don't let her mess your head up. Try your best to isolate her from the Black corn. If she is behind the infertility plague, we

cannot show her any mercy. That act voids her membership to the human race. As I said, you must convince her to come here."

"Why?"

"I see it like this: if Dr. Kins can modify an organism to plant knowledge, then shouldn't he be able to modify the bugs to retrieve information? Here, all three of us can work on getting the gene map."

Suddenly, Jessica felt better. "Practical ideas can be put into practice," her father used to say. "Put Kins on the idea immediately. Theoretically, we would only need her brain."

"That's putting it morbidly."

"Samuel, if she killed our father, I'll see to it personally." Silence followed, the guilty type that reminded Jessica that she should have paid more attention to Sam when he suspected assassination. "I'm almost afraid to ask," said Sam, "but what are you going to target with the nuke?"

"I want you to run this setup—are you sure this office is safe?"

"This room is safe."

She engaged a privacy veil, anyway. "Okay. Point one, shortly after we leave for Lovelock, run a toxic accident drill here in camp. Everybody out." She held up two fingers. "Two. Set the nuke in our I-ships linked to your joppter with a thirty-minute time delay from your cue. Three. All plans and specifications for I-ships are to be loaded in a transmission dump. If things don't go our way, wide-band the information to every company and government on the globe."

"I want a fuzzy water timer and a manual signaler for myself when I meet Tomita. If you don't hear from me in sixty minutes, or if I signal you, hit Lovelock with your team, cue the nuke and the dump. Any problems with that?"

Sam shook his head. "Sounds good and fatal. I'll back the plan."

Too much, felt Jessica. The idea of razing her family's life work made her sick, but she'd be sick to death before letting Kisu Tomita move in on ClamStake.

Rays from the floating sun smeared red on Jessica's joppter as it hovered over Lovelock Castle. The travel sphere lowered to the landing flag, and she stepped into the menacing embrace of Black corn detection.

The quarter-door shut, and the joppter swizzled off the flag, leaving her immersed in the coo of pigeons. Two brick towers cornered the flag area, both with arched entrances. Would Tomita meet her here? Jessica did not enjoy the thought of searching for her.

Pigeons pecked at her boots, making her wait more uncomfortable.

She heard the buzzing first. Then an arrow formation of bumble bees circled her and hovered to a stop, pointing toward the east corner tower. She went in the pointed direction through a cherub-decorated archway that led to a stairway landing. As she went through the opening, she popped the water-seal on her cube-shaped signaler and dropped it behind the wings of a fat-faced cherub. It would take sixty minutes to drain before it would begin to conduct electricity and start to transmit the attack signal. The bees dispersed, zipping down the winding well. Darkness, a myriad of wild scents, and her anxiety prompted a sweat bead to roll down her temple. The warm draft invited her; it warned her.

Jessica tried pandering her host. "Mistress Tomita," she yelled, "Are you down there?"

No response.

Her patience ran out. She did not like waiting for anything, especially Tomita's adolescent games. She descended the stairwell.

It took her five minutes to reach insanity. Lightning bugs covered the stairwell walls in aqueous patterns. Railroad worms striped the stairs' edges, glowing greenish yellow. Her impatience wanted to caution. Suddenly, a bright insect darted past her face, and a smell crashed into her nose: WELCOME TO NEW ORDER. She understood the crystal-clear message. Its insight landed a blow on her confidence. Direct symbolic communication via scent would trash the latest education technology, and even give Dr. Kins a new twist. How much control could Kins exercise with scent technology? The question worried Jessica. No telling how far Tomita had advanced.

And Jessica continued her advance down the winding, weirdly-lit stairwell, doing her best not to crunch something under her feet. Shortly thereafter, she stood at the bottom, sweating from the heat. Thoroughly antagonized by Tomita's theatrics. All that changed to wonder.

A wide cavern opened before her, a smooth rock-made dome filled with geometrically grouped insects. Thousands of different species crawled the walls, the floors, and clung to hovering black lights. Insects buzzed by her head, their scents giving her information about the cave environment. She could smell them communicating, enforcing order. On the floor, enemy species of ants traveled side-by-side, transporting delicate raw material to pheromone processing cubes. The two-meter cubes, constructed from paper—she could smell their purpose—dotted the dome cavern.

The scents carried an organized variety of informational molecules. The aphids that lined the interior cubes were not excreting honeydew, as they did for their ant caretakers in the wild: they excreted customized DNA molecules according to Tomita's design. Everywhere she looked, lines, circles, distinct patterns of African driver ants and American harvester ants combed the lichen-patched floor. Grasshoppers formed spiral communication cones with their abnormally long antennae; rhino beetles carried stark white fragments of oow bone to organic decomposers.

Above the teeming carpet, black lights hung on null gravity suspension racks. Around them, mud dauber wasps had constructed tetrahedron nests. Yellow jackets buzzed by with waves of scent information.

The intense cavern hum forced Jessica to cover her ears.

In the center of the insect machine, like a crown jewel, rested Tomita's operations pad, and maybe Tomita herself; she couldn't tell. The operations pad put communication, surveillance, database information—everything she needed—within arm's reach, at the touch of a key or two. The Nyetex CAM-C immediately caught Jessica's eye. Only three computer-aided molecular constructors existed. Its tall, quad-coolant fins were unmistakable.

"Miss Tomita! Will you..." Jessica's yell died with the hush that swept the insect nirvana. A path opened, zipper fashion, leading to the operations pad. Jessica took her steps slowly, keeping away from the living circuitry.

Tomita's form sat in a lichen-cushioned, high-backed chair of whalebone. Jessica recognized her by smell. A heavy red flesh covered her entire body. As she got closer to the operations pad, she realized the flesh was sent. Red fire ants slid away from Tomita's body. They dripped, oiled, and flowed to the op-pad beneath her, scattering to the living floor.

Jessica's skin crawled, too.

Kisu Tomita's dark features contrasted with the bone chair. Her face was not the soft one Jessica had seen in the picture, but a stone-hard slate. Not a hair grew from her body except from her eyebrows. And they were tufts of hair. Thick seven-inch strands that shot off her brow into a vee. Pheromone dew on her tufts caught the green glow coming from her CAM-C monitors. Her eyelids crept open, not almond-colored and beautiful, but milky purple orbs. They pierced Jessica, releasing an avalanche of resentment. Tomita scented, "Are you enjoying your new reign as Queen of Mars?" Her then mouth did not move. A letter became an atom; a word became a molecule; a sentence became a macromolecule; and optical isomerism became toxic infection. Her stare bored behind the scent question.

"I don't know what that means, tough girl," Jessica said, taking a step forward and doing her best imitation of Sam in a hard spot. She wished he was here by her side. "But I guess offering me a chair and a cup of tea is out of the question."

The cavern hum rose a notch. "Where is everybody? You're taking chances, Ms. Tomita, by letting a con do all your in-house security."

"Not true. No one gets in here without my approval." We'll see about that, thought Jessica. "What's going on here with all the bugs?" Tomita stood and put on a silk kimono printed with blue and black Lewis schematics. "The ultimate experiment in eusocial behavior," she answered in her soft voice. "After the chemical barriers are removed, insects can be organized into a living computer more powerful than humans have ever seen. Scent technology will change the world," Tomita voiced, along with a scent of blueberry. Jessica placed her hand close to her pants pocket, close to the inhaler. "When I heard the news of your father's passing on that day, I was saddened. Our parents had an agreement to terraform Mars together. Today, I extend it graciously to you."

"I don't recall seeing that in a memo. So cut the chat. What did your wasps do to me? I didn't agree to be your games pig for new smelling capabilities." She raised her voice. "You've made my staff, not to mention myself, very nervous. I consider it an act of war."

Kisu relaxed against her CAM-C console. "War? On the contrary. Our families had an agreement. My honor demands that I keep it. Are you familiar with the growing unrest concerning the infertility plague?"

"Yes."

"There is no need for unrest," Kisu added casually. "I have banned childbirth until humanity controls its reproduction and brings the locust-like destruction of Earth under control."

Truth hurt the most when it had to be faced. All of Jessica's doubts vanished. Tomita's confession vanquished any suspicions that lingered in Jessica's mind. In an instant, she forgave her father, but the woman across from her would not be easily had.

No doubt about it. Tomita would expect a strong response. Jessica planned to give her one, too. Sam had been right, the only sure way to get the gene map would be to form a close working relationship. Kisu would have to come to the Alaska Complex. Jessica knew her act would have to be convincing, or she was dead. Jessica took a step forward and attacked Tomita by choking her, bending her back over the console.

"You cannot tamper with the world!" shouted Jessica, squeezing hard, making sure she got some of Tomita's skin under her fingernails. Repressed anger flowed from her like electricity from a battery. Tomita bent like a willow. She

Changing The Universe

countered with a cactus-smelling pheromone.

Jessica felt suddenly weak. She saw a glint of cunning in Kisu's purple eyes. She felt compelled to release Kisu's neck, but she wasn't defeated so quickly. Letting go, Jessica grabbed both of Kisu's pheromone-laden tufts and kneaded her in the stomach.

Tomita screamed and pushed her to the floor. The fall, plus the dizziness caused by Kisu's scent attack, nearly made her pass out. Mustering her determination, Jessica got out her nose inhaler and hit it twice. The cactus scent went away. As she did that, Jessica pocketed one of Tomita's tuft hairs and assayed the pheromone on her jeans pocket. Kisu would need any samples he could get. Tomita straightened her kimono and looked down on Jessica like a predator. "There's a way around your suppressor. You must breathe. However, Ms. Stake, I understand your concern. You must release. You're no threat here. I could send a swarm of my deadly bulldog ants on to your tender body... Let us reason."

Jessica didn't try to stand, hoping it would give Kisu a secure feeling to gloat. "You can do what you want to me. But you cannot do it fast enough to stop me from signaling my people. Living here alone with your freak machine is a mistake."

"My Black coon detected no electric on your person."

Jessica put her lighter-sized signaler into view. "There is no current flowing. My switch is manual. Now, I want an antidote for the fertility plague, or I'll nuke ClaimStake's I-ships. You'll get nothing but waste."

"That wouldn't be wise, Jessica Stake. You have the fertility antidote tied into your monthly cycle. Your nose will discharge, as you quaintly refer to it, an antidote that will reverse infertility in males and females. If people want children, Ms. CEO Stake, they will have to come to you. You will be my security."

Jessica felt crushed, slammed to the bone. She had no trouble believing Tomita would pull such a scam.

"Go to Mars," said Kisu. "Load your I-ships. Humanity is of this Earth, this cell. It does live alone. It cannot travel alone, in twos, in teams, or groups. Humanity must swarm. It must maintain its bioenvelope. Swarm from Earth past the Barrier with your I-ships filled. You'll have no trouble finding volunteers. I will help you select people based on their genetic aptitude. The next generation of people will depend on their Queen. In less than a generation, Mars will live. In two generations, humans will be able to live in space without suits. We are no longer slaves to the gene, Jessica Stake. I give you fertility and immortality. That's just the beginning. Somebody had to give Earth back its vision of greatness. It will be us."

The dizziness gone, Jessica put away her signaler. This is the moment, she thought. There wouldn't be another time when Tomita would be agreeable. "Help me up," she requested diplomatically. "I will not risk taking a half million colonists across the Barrier on your word alone. For instance, I want you to come with us on the first voyage to Mars."

Kisu stroked her long tufts. The hum in the cavern was almost nothing. "I think not," she replied. "What's the point?"

"I told you the point. I don't trust you yet. I must admit, ClaimStake's power base could grow considerably from our venture. But if you and I are to be partners, then we should be together. We must close ranks and merge completely. Apart, we risk communication leaks. With me, you are safer, and don't tell me your Black coon is impregnable. It's not," she said, holding up her signal device to bring home the point. "Otherwise, no deal."

With no hesitation and a slight smile, Tomita said, "Agreed. I will accompany you. Mars will be safer. Once we establish our swarm, I am not to be disturbed, and then I will meet only with you."

Not a glimmer of satisfaction escaped through Jessica's mask when they shook hands.

Jessica, Sam, and Dr. Kins conducted their first ultra-secret meeting two months later aboard the silent and cold Scarlet Berth. It took place inside the donut-shaped toroidal magnetic chamber, the ship's main power source. Dressed in sterile white jumpsuits and yellow rubber boots, they sat side by side; Jessica sat in the middle facing Sam and Dr. Kins. Anti-listening baffles mounted on tripods enclosed the trio like bookends. Jessica didn't waste any time. "Dr. Kins," she said, "were the Tomita samples sufficient?"

He smiled, a rare gesture for any of them. "Yes. There was plenty of skin—some trace amounts of blood, too. The tuft hair was also soaked with pheromone."

"What about my...uh...the antidote?" His smile dissolved. Positive. It's very concentrated and does reverse infertility."

"Can we synthesize it?" asked Sam.

"Unlikely. We'd have a better chance at finding a universal cure to the cold."

Sam sighed. "If this gets out, the U.S. government will be up here so fast—"

Jessica cut him off. "Then we deal with it."

"Yes, Fautin Stake, and I've got inside news. Helsinki Synecological Research and French Aerospace confirmed Kins here and how to 'swarm' the Barrier. The biz world and Uncle Sam are going to be very interested in I-ship technology soon. I have a copy of the HSR report; it's not due to be released for two long weeks."

"Good initiative. Let's have our I-ships in space, beyond traffic orbit, before the report hits the media. I'll lunch-in with Tomita and set up a committee to screen colonist applications."

Sam added his suspicions. "How are you going to screen Tomita's people? You know she will have some cronies aboard."

"As you might remark, Samuel," said Dr. Kins, "I have her number. The pheromone sample Jess attained revealed much about Kisu's communication. Like radio, she uses a carrier pheromone. I know what to look for, and any receivers—no to speak—she has in her service can be ID'd by their blood. I'll know who Tomita's people are before she arrives."

"Damn, Kins, good job," quipped Sam. "I'm glad you're doing—"

"Shut up, Sam," ordered Jessica. To Kins, she asked, "Will your Micro Teachers retrieve as good as the implant information?"

"Yes. I can infect Kisu through food and recover the organisms through her waste."

"Even if it doesn't work," offered Sam, "she will at least be off the planet. And we'll have ample opportunity to test her mettle. She's not dealing with idiots."

Jessica hoped not.

The day Kisu Tomita arrived at Alaska Complex, Jessica sat in the busy communications room. The technicians around her, their voices, their movements, she ignored. The television screens consumed her attention. Global media didn't miss an episode of suffering and world misery. Humanity was scared, and Earth began feeling an iron hand of doom. She flipped through channels of reports, her silent wailing wall.

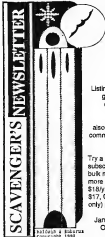
No children! The plague scorched her conscience and drained her health. Not much showed in the way of dark-circled eyes or weak muscles or cold night sweats. Her sickness murdered beauty; it whittled a heavy, thick cord of hope down to a delicate thread. Nothing mattered except breaking Tomita's back.

No children! People were fatalist mad and mob angry. The only thing that kept the seams of world sanity from ripping into shreds was the uniformity of oppression. None were spared; the last child born was now a year old. Sperm and egg banks had become armed encampments as quickly as the baby-product industry had collapsed. The suicide rate soared higher than all of Earth's war casualties combined. People were feeling hopeless and were hurting, but not nearly as much as Jessica Stake, Queen of Mars.

"Miss Stake," said a young teleoperator, "Missess Tomita and twenty-five Krakow mercenaries are in the central hallway. Do you want the pic on the main screen?"

"No," answered Jessica. She didn't need to see them. The mercenaries were merely for show; Tomita wouldn't rely on bullet boys. For Jessica and Sam, they were familiar obstacles, easily defeated. Knowing that didn't warm her hope. Even with the best possible outcome, this was only the beginning. When all was said and done, humanity had just taken a left turn onto new road.

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Harsh Mistress SFA



INTRODUCTION

This is the second short story of mine which was published in an SF magazine; the first, "Live From The Mars Hotel," saw print in the mid-December 1989 issue of Isaac Asimov's Science Fiction, and "Free Beer and the William Casey Society" followed two issues later, in the February '89 issue of the same magazine.

The story was inspired by an off-hand comment made by Art Dula, a Texas attorney specializing in space law—yes, there is such a field—when he spoke at the founding conference of the International Space University, held at MIT in April, 1987. Art was delivering a presentation on commercial space activity, and during the course of his speech he happened to remark that the NASA space shuttles were capable of delivering 2,000 gallons of beer into orbit.

Everyone laughed, of course, and I wrote this odd figure down in my notebook. It wasn't until several months later, though, when I rediscovered my notes from the ISU conference, that this story occurred to me. I wrote a letter to art and asked if he was just making a rhetorical comment, he wrote back and told me that he wasn't, and explained his reasoning, which is faithfully reported in this story.

Bob Jennings, the proprietor of the Fabulous Fiction SF bookstore in Worcester, Massachusetts, and the rest of the gang who hung out there on Friday afternoons, helped me develop some of the other bits and pieces. I set the whole thing in the near-future background I had created for my novel *Orbital Decay* (my first fiction sale, which wasn't published until many months after this story was published); as it turned out, it would be the first of several short stories and three more novels I would write in this future history.

It is now dated somewhat by the subplot regarding the late, not-so-great U.S.S.R. and the paranoia which underlined American relationships with the Russians. When I included this story in my collection, *Rude Astronauts*, I was tempted to update the story to compensate for recent historical events. I chose not to do so; any attempt to do so would be contrived at best, and I'd rather let this minor anachronism remain as a tombstone to the Cold War.

No one noticed this story when it was published in IASFM. I was still an unknown writer at the time, and it was overshadowed by a Hugo-winning novella which appeared in the same issue, Judith Moffett's "Tory Tango." Since then, it has been translated into Portuguese and Japanese; when the British edition of *Rude Astronauts* was published, the artist who painted the cover chose a scene from "Free Beer" as the subject. Yet this is only the second time this story has been reprinted in the U.S. (besides *Rude Astronauts*...hey, did I mention that I just published a small-press collection?). It's one of my personal favorites, and I'm proud to have it reappear in *Harsh Mistress*.

—AMS

St. Louis, May 1993

FREE BEER AND THE WILLIAM CASEY SOCIETY

by

ALLEN M. STEELE

Illustrations ©1994 by Timothy Ballou

Cowboy Bob told me this story one slow Wednesday night while we were hunched over the bar in Diamondback Jack's, so I can't make a strong case for its veracity. If you drink and hang around in bars, you should know that half the stories you hear are outright lies, and the other half are at least slightly exaggerated. And one would have to be more than a little gullible to completely believe a former beamjack named Cowboy Bob. Gullible, stoned, or both.

If it weren't for the events which happened after Bob told me about the Bill Casey Society and the Free Beer Conspiracy on Skycan, I wouldn't be bothering to pass this yarn along. I'm a respectable journalist; I don't trade in hearsay. But maybe there's a moral in the story. If not a moral, then at least a warning.

Diamondback Jack's was a hole-in-the-wall beer joint on Merritt Island, Cape Canaveral, about two miles down Route 3 from the Kennedy Space Center. It's a dive for space grunts, which means that it's not the sort of place to take the kids. In fact, tourists, space groupies, execs from the space companies, NASA honchos and most media people are unwelcome in Jack's. Not that the place is all that attractive: windowless, weather-beaten pine walls, oil-splattered littered sand parking lot, busted plastic beer sign, clusters of Harley-Davidsons and GM pickup trucks parked outside. It looks like the sort of northern Florida redneck joint where you can get a cold stare for requesting a Vodka Collins instead of a Budweiser or get hit over the head with a pool cue for fouling someone's shot. Appearances aren't deceiving, either. You're better off drinking in the fern bars down on Cocoa Beach.

But if you can survive a few consecutive nights in Jack's without being punched out or thrown out, you're on the way to joining the regulars: professional spacers whose lives revolve around the Cape and the space business. Shuttle pilots, launch pad ground crews, firing room techs, spacecraft mechanics, flight software writers, cargo loaders, moondogs, the Vacuum Suckers, and beamjacks.

Inside, Diamondback Jack's is all space. On the walls are framed photos and holes of Mark I, II, and III shuttles lifting off, of beamjacks tethered to sections of powercans, moondogs building the mass driver at Descartes Station, Big Dummy HLVs coasting into orbit, and Olympus Station revolving like a huge wheel in geostationary orbit above a crescent earth. The bulletin board near the door is pinned with job openings and torn-out articles from *Aviation Week*. Behind the long oak-top bar, along with the varnished and mounted skin of the rattlesnake that Jack Baker claims to have killed while fishing in the Everglades ("Sumbitch crawled into my boat and I kill it

Harsh Mistress SFA

with my shotgun. Blew the bastard's head clean off."), are snapshots of spaces past and present, dead and alive, unknown and infamous: Tiny Prezini, Joe Mama, Lass Barnhart, Virgin Bruce Neuman, Dog-Boy and Dog-Girl, Monk Walker, Mike Webb, Eddie the Gentle Goon, Sandy Fey. There's a picture of Jack Baker, as a skinny young kid, standing with Robert A. Heinlein, taken at a science fiction convention many years ago. And there's a picture of Cowboy Bob, wearing a headset with his helmet off, snoring at the camera. He's wearing his trademark Stetson in that picture.

I think Bob was born with that tan felt Stetson on his head. I don't think it could be removed without surgery. Maybe he's got a pointed head underneath. With his white beard, wrinkled eyes and bad teeth, though, he's no singing cowpoke or last noble horseman. Bob was a space grunt. Once he told me he couldn't stand horses.

When I knew him, Cowboy Bob was one of those hard-up unemployed cases who were regular fixtures in Jack's, passing away the money they had made years ago as beamjacks on the powersat project. Jack was one of those semi-skilled young teeks who had signed on with Skycorp and spent two tough years in orbit on Olympus Station-Skykan, as the vets knew the giant orbital base. They went because the pay was good, or for the adventure, or because they were wanted back home by the law, the I.R.S., or their former spouses. The ones who survived the experience and didn't screw up came home to small fortunes in accumulated back-pay and bonuses. Those guys bought restaurants or small businesses, or just bought condos on the Cape and were lazy for the rest of their lives.

Some other vets, though, screwed up and lost much of their pay to fines and penalties. Those guys came back with not much more money in the bank than they had before they left. Most of the grunts left the industry. The ones who stayed, for the most part, tried to find ground jobs on the Cape, or went overseas to work for the Europeans or the Japanese. A handful of dishards tried to get another space job.

Cowboy Bob, the former Utah goat-roper who couldn't stand horses, was one of those in the last category. Skycorp wouldn't rehire him, though; nor would Uchu-Hiko or Arianespace. So he took small jobs for the little companies which did short-term subcontract work for NASA or the Big Three. But I don't think he ever left Earth again after he finished his contract on Skykan; his job was always on the ground. I always figured that was because of his drinking problem.

So Bob spent his nights in Diamondback Jack's, swilling beer, talking shop with the teeks and other unemployed space grunts, making sour-breathed passes at the college cuties who slumped in Jack's during spring break, keeping his feelings out for job leads. Shooting the bull with anyone who would buy the next round. That's how he told me the story, that Wednesday night when the place was dead, about the Skykan beer scam.

He was already drunk when I sat down next to him at the bar. I signalled to Jack to bring me a Bud, and the first thing Bob said to me was the sort of thing one would expect from an inebriated wreck. Cocking his head toward the door, he asked, "You just came in, didn't ya, Al?"

I nodded. "Did you see any cars parked out there?" he asked.

"Sure, Bob. Yours. Mine. Jack's. Whose car are you looking for?"

He cast me a look suggesting that I had become stupid

since the last time he had seen me. "Brown Toyota-GM Cutlass. One or two men sitting inside." He paused, and added, "William Casey Society sticker on the rear window. Remember what I told you last Saturday?"

I shook my head as Jack pushed a tallneck in front of me. "I wasn't here last Saturday, Bob."

(Of course, I didn't say where I had been last Saturday. There's nothing wrong with attending a routine press conference at KSC, unless you're a patron at Jack's. Spacers and reporters have an anomalous relationship going back to the days when Project Apollo press pool reporters gave NASA a new definition—Never a Straight Answer. Jack used to keep a bag of Morton's salt underneath the counter for the novice journalists who wandered into his bar looking for sources, to dump on their head as soon as they pulled out their notebooks "so the bloodsucking leeches will wither up and die." My presence was tolerated only because I was low-key about my profession and because I never brought my work into Jack's. So the less said about my stringer work for the *Times*, the better.)

"Huh," Bob said, wearing the vaguely puzzled expression of a heavy drinker facing short-term memory lapses. "Maybe I didn't tell you about it." He looked towards the door again. "Well, is there a car like that out there?"

"I didn't see one. But I don't think I'd recognize a Casey Society sticker if I saw one."

Now Cowboy Bob had my curiosity worked up. Perhaps that was his intent all along; get me involved in a conversation and cage drinks off me all night. I decided to play along. It was a slow, humid summer night, and I was in the mood for a tall tale.

I got Jack to bring Cowboy Bob another Miller's and I pulled out my cigarettes. Bob took a long hit off his beer, tilted the frayed rim of his hat back a half inch, and leaned a little closer to me. "Did I ever tell you about how we got 444 cases of beer up to Skykan? Well..."

Ten years ago (Cowboy Bob told me) his crew was doing the final work on SPS-1, the first large-scale solar power satellite to be built by Skycorp. Almost five years and the labor of nearly three hundred men and women had gone into the project, not to mention about \$10 billion in corporate investments and government loans. The result was the 21st century equivalent to the Golden Gate Bridge: a landmark achievement in space construction. All that remained to be done before the beginning of the low-power tests was the final installment of the microwave dish antennas at both ends of the thirteen mile span of the powersat.

"So we were pretty proud of what we had done here," Bob recalled. "There would be other powersats, of course, but this was the first big one, and we were the crew that was putting on the finishing touches. That called for some kind of celebration, right? So one night a few guys from the second shift got together in one of the rec rooms and started talking about what we wanted to do. As it turned out, everyone wanted a beer bust."

The problem with that, of course, was that both Skycorp and NASA had stringent regulations against alcoholic beverages being made available to space work crews. The rules were tightly enforced; NASA inspectors searched all outbound orbital and lunar crews for booze, and Skycorp's security cops on Olympus Station had already found and torn out two stills aboard the space station. Skycorp had tried to compromise with the beamjacks' thirst by providing in the rec rooms non-

Free Beer

alcoholic near-beer—a weak, watery brew which tastes like chilled beer whizz.

"That just wasn't good enough," Bob said. "I mean, we'd been gagging on that stuff for the past eighteen months. We wanted real beer. Budweiser, Miller's, Bush, Rolling Rock, Black Label...anything!"

He hefted his latest bottle to show what real beer looked like. "At this point, y'know, nobody gave a damn about Skycorp's rules. The job was done, our money was in the bank. Once the last bank of cells was laid down and the antennas were installed, we'd all be shipped home and it would be the end of a long tour of duty. So we were willing to take some risks, break some regs. Who cared? We were entitled to a good blowout, man."

Getting beer onto Skycan entailed a smuggling operation, of course. In the past, Skycan crews had managed to bribe KSC ground crews into packing off-limits personal items into the orbital transfer vehicles which resupplied Olympus Station on a weekly basis. A network of reliable connections at the Cape, therefore, was already in place. But the stuff which had been stashed into the OTVs before they were loaded into the cargo bays of the shuttles—tape players, cassettes, comic books, Monopoly games, and even the occasional fifth of whiskey or vodka—had taken up little room in the OTVs and could be easily hidden from NASA inspectors. The more the conspiring beamjacks thought about it, the more they realized that, in order to get enough beer into space for a proper party, this operation demanded smuggling an unprecedented volume of contraband into orbit.

"Dog-Boy pulled out a calculator and figured it out," Bob continued. "A Mark II shuttle's OTV had a cargo capacity of 65,000 pounds, which translated to about 1,000 gallons, water or beer. That was about 444 cases of 12-ounce cans."

He paused and gazed at his empty bottle; I gave Jack the high sign to bring us another round. It looked as if I was going to have to pump a thousand gallons of beer into Cowboy Bob to get the story, which was probably what Bob wanted me to do. But the yarn was getting good and I wasn't about to start being cheap. Jack silently put another round in front of us—he had already deprived Bob of the keys to his Jeep—and the former beamjack continued his story.

"Of course, Dog-Boy made that calculation just to give us an idea of what could be done. 'Of course that's absurd,' he said. But once he told us it could be done..." He laughed, shaking his head.

"You only had about a hundred people up there," I said. "Ten gallons of beer for every crewmember was a little overkill, don't you think?"

"You're missing the point, Al!" Bob slapped his hands down on the tabletop. "It wasn't a matter of whether everyone had a six-pack or a hundred gallons. We had just gotten through building a nineteen-square-mile structure in space. There was nothing we couldn't do! We were the best space construction crew there had ever been! So it was...it was like..."

"A matter of pride."

"Hell yeah! It wasn't having beer that mattered. It was getting the beer, that was the principle. The challenge was the thing." He shrugged and picked up his beer. "So what the fuck? We decided to do it."

So the handful of beamjacks involved in the discussion—Bob, Dog-Boy and Dog-Girl, Eddie the Gentle Goon, Suffering Fred, a few others—got to work in plotting the Free

Beer Conspiracy, as it came to be called. There were quite a few obstacles which had to be crossed, the largest of which was circumnavigating NASA and Skycorp. But the obstacle which they didn't foresee was the William Casey Society, personified aboard Skycan by one Leonard Gibson, sometimes known as Lenny the Red.

The William Casey Society, of course, was the extreme right-wing group which had taken up in the new century where the fanatics of the 20th century—the John Birch Society, the LaRouchians, the American Nazi Party—had left off. Named after an old CIA chief who had died during one of those White House scandals way back when, the Bill Casey Society had become the cause of choice for disenchanted Communist-haters of every stripe, from conspiracy mavens to shell-shocked vets of Gulf War II to survivalists disappointed that a global thermonuclear war had not occurred. Fueled by a distrust of the new cooperation between the United States and the Soviet Union—particularly in space, as typified by the joint exploration of Mars—and led by a minor presidential candidate named George White, the Caseyites compensated for a lack of political clout with fervor, paranoia, and a few well-placed connections.

Space industrialization had become a favorite target of the Bill Casey Society...in particular, Skycorp's powerful project it was George White's contention that the building of SPS-1 was the first stage in a Communist-backed secret operation to control the world. Skycorp was being backed by the Soviet Union, White claimed, and the SPS network was being established not for use as orbital power stations but as microwave beam weapons. Once three powersats were established over the United States and two were built in geostationary orbit above Great Britain and Japan, Soviet moles in Skycorp and NASA would take control of the SPS system, turn the microwave transmitters against American, British, and Japanese armed forces—namely hypersonic bombers and submarines—and fry them, thus paving the way for Soviet global conquest.

Never mind that SPS microwave beams, designed to relay energy from space to ground-based receivers with as little environmental damage as possible, barely had the power to blister the paint job on a bomber or a sub. Never mind that the Soviets were building their own SPS system in orbit above the U.S.S.R., or that the Kremlin had better fish to fry—so to speak—than whacky schemes of global domination. But this kind of paranoia always finds an audience, and it keeps the tax-free contributions rolling in.

The Caseyites, to their credit, realized that the SPS construction crews on Olympus station—the latest generation of high-risk blue-collar all-American hardhats—were unlikely to be Communist sympathizers, but were only guilty of ignorance. This was obviously the soft belly of the commie plot. So the Caseyites went so far as to plant its own agent on Skycan, picking a member from its ranks to go to work on Olympus Station in an effort to convince the beamjacks that there was a plot afoot and to convert them to the Caseyite cause.

That person was Leonard Gibson, a thin and somewhat wild-eyed former arc welder for Martin Marietta, who managed to get a job as a beamjack on Skycan.

"We already had Lenny's number by this time, of course," Bob said, "and we tended to leave him alone."

"What do you mean, you had his number?"

Bob sipped his beer. "He came aboard Skycan, from day one, passing out Caseyite leaflets, trying to make converts

Harsh Mistress SFA

out of his bunkmates, claiming that certain members of the command crew were Russian sleeper. Lenny used to get into these brain-damaged rants in the rec room about how we were all commie dupes, that sort of thing. He even insisted on changing his bunk assignment regularly, saying that he was being bugged or something."

I shrugged. "There were a lot of weird cases on Skycan. He should have fit right in."

Bob shook his head. "Yeah, but not hostile word like that. Even Virgin Bruce wasn't that twisted. Even the religious fanatics got the hint when to shut up. Lenny the Red thought he was on a vital mission to save the world." He grinned. "We used to have some fun with him, like the time Suffering Fred casually pulled out a copy of *Das Kapital* in the rec room and started reading it aloud. Blew Lenny's mind. That's one thing about fanatics, Al. No sense of humor whatsoever."

So Lenny the Red found himself ostracized. That made the situation even worse. Now Lenny Gibson began to suspect that the situation was even worse than George White had predicted; somehow, most of the Skycan beamjacks had been brainwashed, had become willing commie dupes. How else could he explain this complete rejection of his claims?

So Lenny the Red changed tactics. Instead of seeking converts, he began to carefully observe the behavior of his fellow beamjacks, watchful for indications that a conspiracy was afoot. Lenny the preacher became Lenny the spy, the guy who sat quietly in the corner, listening, watching, waiting.

"And sending coded messages," Bob added. "The communications officers who worked in command, y'know, handled the phone calls which crewmembers made to the folks back home. They sometimes listened in for kicks, and they used to tell us about these bizarre calls Lenny would make to some number in Baltimore. 'Tell Aunt Jane to water the begonias. Repeat, tell Aunt Jane to water the begonias. The Moon is red. How is Uncle George?' Cowboy Bob chuckled. "God knows what that shit meant, but it was obviously reports to the Casey Society."

"You didn't get bothered by this?"

"New. He was basically harmless." Bob paused and sighed, his eyes rolling up toward the ceiling. "Until he caught the rumors about the Free Beer Conspiracy, though."

"Let me guess..."

"Right. Commie plot."

There was little which could be kept secret for long aboard Olympus Station. The space station was enormous, but it was only so large; rumors and hearsay tended to spread quickly among the hundred-plus men and women living in the big wheel, sometimes but not always missing the attention of the security team or the station supervisor. In this instance, word seeped out that something special was being sent up to celebrate the completion of SPS-1. Yet only a small handful of people knew the details. If Phil Bighorns, the U.S. Federal Marshall who headed station security, or Hank Luton, the station supervisor, had known what was going on, the jig would have been up; but apparently they didn't, so the conspiracy continued to build itself.

Eddie the Gentle Goon managed to make covert contact with one of the usual sources for goodies at the Cape, a cargo loader who for years had fattened his bank account by smuggling personal-request items into the OTVs bound for Skycan. (Cowboy Bob wouldn't tell me his name, saying that the same person was still working for Skycan at KSC.) The

cargo loader was willing to take the risk, which was considerable, but he also put a large fee on the job—fifty grand up front, overhead costs included. Eddie dickered with him and managed to get the price down to \$30,000 through a combination of sweet talk and menace for which the Goon was renowned, and authorized a transfer of thirty grand from Eddie's bank account to the loader's. The price was still steep, but the co-conspirators grudgingly agreed to reimburse the Goon for the expense.

The date for delivery of 444 cases of beer was to be on or before April 15, the day that final work on SPS-1 was scheduled to be completed. Dog-Boy and Dog-Girl, who had both worked previously as ground crew at the Cape, worked out the rough framework of the plan. They figured that, once the beer was packed into an OTV and the transfer vehicle was loaded into a shuttle's cargo bay in the KSC Shuttle Processing Center, it would be smooth sailing. Under standard procedures, the OTV would not be reopened for inspection once the shuttle was mated with its flyback booster and moved to the launch pad. Once the shuttle reached orbit, the flight crew would routinely deploy the OTV from the cargo bay and fire its engine, sending it towards Olympus Station as if it were any other resupply mission.

So the hard part was to get all that beer into an OTV, a difficulty compounded by NASA regulations forbidding all alcoholic beverages at Kennedy Space Center. There was no way a beer truck could simply drive past the checkpoints and off-load over four hundred cases of beer at the SPC. Not without attracting the wrath of KSC's security cops, infamous for their lack of humor.

Eddie relayed these concerns to the bribed cargo loader at the Cape. The cargo loader's reply, in effect, was: don't sweat the details, we've got it covered. Eddie was also asked if he and his buddies wanted a hundred pounds of beer nuts, cheap.

The cargo loader did his job well. First, he purchased 444 cases from a liquor wholesaler in Titusville, apparently explaining that he was planning a little get-together for a few friends. The wholesaler, not asking too many difficult questions, delivered the beer to the loader's house in Cocoa Beach, where the cases were stacked in his garage.

Then the cargo loader approached a few touchable cronies who also worked at KSC and, bribing them for \$500 each, managed to enlist their help. He was careful to select Skycorp employees who worked at the SPC, were less than completely honest, and who owned pickup trucks. He found four guys who met that description.

"The big hang-up," Bob continued, "was getting an OTV. The cargo manifests for the weekly shuttle flights were scheduled well in advance and were pretty tight at that point. With SPS-1 soon going on-line, the low-orbit factory stations wanted to stock up their supplies. This guy wouldn't and couldn't bump any life-critical cargo, and he couldn't slide any military or scientific pallets off the board without attracting a lot of attention. So for a while there we were stuck. We had the beer, we had the plan, and we had the people, but we didn't have the OTV."

"The Mark III shuttle was in operation then," I pointed out. "It could have gone direct to Skycan, and you wouldn't need to use OTVs at all."

Bob shook his head. "The Columbia II and the Shepard were big-ticket birds then. Too high-profile for smuggling stuff, and their cargo bays could be opened anytime,

even if you could get something bumped from their cargo manifests. We had to use a Mark II like the Ley or the Sally Ride, which were doing milk runs with no big fanfare. But, y'know, they had LEO ceilings, which meant we had to find an OTV.

"Anyway, Dog-boy came up with the solution, but Fred and I did the actual engineering. Three OTVs were permanently docked at Skycon, mainly used to ferry stuff over to the construction shack. Fred and I, when nobody was looking, climbed into one of the things, accessed the guidance computer, and plugged in some new coordinates that Dog-Boy figured out. Next time the OTV was sent out to the shack, the engine misfired." Grinning, Cowboy Bob sipped his beer. "It ended up in an elliptic polar orbit over the Moon. It was a real bitch to retrieve the thing."

"Oh, ho. Convenient little accident..."

"Exactly. Hank Luton had to request a new OTV for Skycon, since we were running three shifts to get SPS-1 finished on schedule and we needed three OTVs to get the job done. Skycorp was pissed, but they managed to get NASA to bump a science payload back a couple of weeks so we could be sent a new OTV. We got lucky. It was manifested for the Willy Ley, with launch scheduled for April 12, right on the money."

"Hmmm. But Skycorp doesn't send up empty OTVs, so something must have been bumped from the manifest anyway."

"Toilet paper, logbooks, frozen food, screwdriver beads, shit like that. Funny how easy it is to misplace that stuff in the warehouse, y'know?"

While the Free Beer conspirators were taking care of the OTV problem, though, another annoying hassle came to their attention, one much closer at hand: Lenny the Red, who had taken to spying on them.

"It wasn't hard to figure out that Lenny was keeping tabs on us," Bob said. "I guess he thought he was James Bond, but he was about as subtle as an elephant fart. Fred and the Goon and I would be in the rec room, right? Maybe not even talking about this thing. And beer be'd come down the ladder, kinda sauntering across the compartment to sit down real close to us, but being careful not to look our way so he wouldn't notice us. Whistling, for Christ's sake..."

"Inconspicuous behavior."

Cowboy Bob snarled. "Nothing about Lenny was inconspicuous. It didn't take a genius to see that he knew something was going on. At first we thought it was funny, 'cause if the Bill Casey Society thought smuggling beer into space was subversive..."

He shook his head in disgust and polished off his latest beer. "Anyway, they were definitely dumb to rely on a flathead like Lenny for intelligence, and that was the scary part."

As it turned out, the Caseyites did not know that beer was being smuggled into space. Instead, the Society was once again gnawing on a favorite old bone of the right-wing fringe which had been lying around since the Soviets had launched Sputnik in 1957: that the U.S.S.R. was preparing to place nuclear warheads in orbit in preparation for a sneak attack on the U.S. from space. Apparently the group had discarded one commie plot for another. In any case, the Society had informed Lenny to be alert for such a scheme, if there was indeed an active Communist element infiltrating Olympus Station.

So naturally Lenny Gibson, America's vigilante in space, had discovered just such a plot. There were signs that a nuke would be ferried into orbit aboard an OTV, to be launched by the shuttle Willy Ley on April 12.

"Whoa, wait a minute," I said. "How did you know what he was thinking?"

"Remember those coded messages he was sending to Baltimore? Lenny would write them down first in plain English, then rewrite them into code on the same page. Once he memorized the coded message, he would tear up the page and dump the scraps into the toilet in his bunkhouse. But the moron forgot to flush the pot one day."

"So you found the scraps and put the uncoded message together."

Cowboy Bob nodded, grinning. "Plus he talked in his sleep sometimes. Some secret agent, right?"

"Right." I decided to take Bob's story with a few more grains of salt. The yarn was getting a little implausible. But I wasn't ready to call it total bullshit yet. "So now you knew that Lenny thought you guys were smuggling a bomb up there."

"Yeah. Even though it was funny as hell, it did present another problem. If the Caseyites took Lenny's reports seriously, they might decide to tip off somebody, like at the FBI or NASA. Of course the feds might not take 'em seriously, but on the other hand NASA might not take any chances, make sure that security at the Shuttle Processing Center was tighter that week. So Lenny was becoming a pain in the ass and we had to take care of him."

Pitching Lenny out the nearest airlock was briefly considered, but dismissed because nobody wanted to take a murder rap, although the idea was tempting. They also discussed tying him up and stuffing him into a suit locker for a few days, but the drawback was that he might be missed from his workshift. The conspirators thought about simply letting Gibson know what was going on, letting him in on the plan so he would be aware that beer, not bombs, was the contraband inside the OTV scheduled to arrive on the 12th; yet a paranoid like Lenny would probably not believe the truth. Even if he did, it was always possible that he would twist it around so that the beer was being laced with mind-altering drugs by those evil Russians.

"Dog-Girl, bless her, came up with the answer," Bob continued. "Pretty simple, actually. Lenny had to maintain contact with his pals in Baltimore to do any real harm, right?"

This meant he had to use the phone. Orbit-to-Earth phone calls were rationed items, and you were only allowed to use up so many minutes a month. So we managed to get the communications officers to adjust the phone logs in the computer just a weensy bit so that, suddenly, Lenny was overdrawn on his phone ration for April. No more phone calls, no more messages to Aunt Jane and Uncle George. No secret messages, no word of a commie plot."

"Nice going," I said. "But that just took care of the Caseyites leaking word to NASA. What about Lenny himself?"

"You're getting ahead of me, Al. I'll get to that. Hey, Jack! Another round here?"

Around this time a few more of the regulars were wandering into Diamondback Jack's; some were loitering around the bar watching a baseball game on TV, and a pool game was getting started at the table on the other side of the room. Bob was getting blitzed on the beers I was buying him

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and I was catching up, so I barely noticed the guy who had elbowed up to the bar a few feet behind Bob. He didn't look familiar, but that was the only impression I had of him. He seemed not to be paying attention to us and Bob didn't notice him; the next time I happened to look his way, he was gone. I didn't think about him again until later.

Two days before the Willy Ley made its April 12 mile run, the cargo loader whom Eddie the Goon had berbed, with the help of the four other loaders he had paid off, quickly placed 444 cases of beer into OTV OL-3643, the load-in took place during the first shift at the SPC, in the wee hours of the morning of April 10.

For the past week the cargo loaders had been smuggling the beer, a few cases at a time, through the KSC security gates, hidden under camper caps in the backs of their trucks. The graveyard shift at the Cape was more easy-going than other shifts at the launch center; the shift supervisors tended to huddle over coffee in the cafeteria, so the loaders apparently had no trouble stashing the beer into the OTV. By the time the SPC's shift supervisor finished his early-morning coffee break, the OTV was sealed and was being trucked out to Pad 40 to be loaded into the Ley's cargo bay. The shift supervisor routinely checked off OL-3643 was ready to fly, not bothering to check inside.

Eddie the Goon received a telegram from his enterprising friend later that day, innocently informing him that the party supplies were on the way. Goony grin plastered across his face, Eddie told Bob and the other principle people involved in the scam, and they put the next phase into motion by spreading word along the station grapevine: something wonderful was arriving by OTV at the docking module on April 12, at the beginning of the second shift, and a few volunteers were needed at the Docks to get it hauled from the station's hub down to the rim modules.

"You didn't tell them what was coming?" I asked.

Bob belched and shook his head. "Naw. We wanted it to be a surprise. We also didn't want Hank to find out. But we got enough guys to say they'd be there. Everybody knew it was something good."

As anticipated, Lenny the Red got the word through the grapevine. He had realized by now that his messages weren't getting through to paramod Central—all part of the cosmic plot, of course—so he interpreted the subterfuge as the hatching of the conspiracy. Right idea, wrong conspiracy. To the quiet satisfaction of Cowboy Bob and company, Lenny began to get jumpy. He even switched his bunk assignment again.

"We knew that Dick Tracy would be at the Docks when our OTV arrived, of course," Bob said. "He was planning on something, though we didn't know what. There weren't any gues on Skycan that we knew of, but maybe he had managed to sneak one up in case he had to assassinate some commies. Maybe he was planning to defuse the mike all by himself, I dunno. But we just made sure that he was covered when he got there."

He reached for a cigarette and almost knocked over his beer without noticing. Jack threw us a look of warning which Bob didn't catch either. He was ripped. "So when the day came, at 1100 hours about, there were ten, fifteen guys crowded into the Docks when the OTV hard-docked with Skycan. Eddie and Fred and me and couple of the other 'jacks were kinda casually floating around Lenny while Chang pressurized the airlock and undocked the hatch, so I got to see Lenny's face when the thing was opened up."

Cowboy Bob coughed loudly, then began to laugh. "Jesus! Was he pissed! He was staring with this look on his face when Dog-Boy got the covers and the ropes off and started pushing one case after another out into the docks."

Bob drunkenly hobbled off his bar stool. "Man! One case after another! Fred screaming, 'Free beer! Free beer!' And all the guys howling, cracking up, grabbing the cases. Someone opened a can—and you can imagine how shook up that stuff was, after sitting through a rocket launch—and beer started spewing all over the place, making these big yellow bubbles that flew all around, splattering everywhere, and more guys started appearing, hauling the cases out of the Docks, down the ladders through the spokes to the rim. A fucking riot, Al—and in the middle of all this, Lenny, mouth working like a fish, can't believe what's going on, shouts..."

Bob shot his arms out wide and yelled, getting the attention of everyone in the bar: "This is un-American! Where's the god damn bomb?"

"Hey, Cowboy!" Jack snarled from the other end of the bar. "Cool it or I'll cut you off!"

Bob was doubled over the bar, cracking up and breathless with the memory of the scene. He got some control of himself after a few moments. Clambering back on his stool and reaching for his beer, he said, "And that's when we dropped the blanket over him."

Jack Baker gave us one last round of beers and then shut us both off, after first making me walk a straight line to see if I was halfway capable of driving both Bob and myself home. While Cowboy Bob sucked down his last beer he finished his story.

Once Bob, Eddie, and Fred had grabbed Lenny in the blanket and trussed him with sylon cords, they shoved him into an empty suit locker in the Docks and locked it shut. By then the party was beginning to roll down in the rim modules; most of the second-shift beamjacks were logging in sick, and the third shift was looking for excuses. Once it became obvious that a surprise party was in progress and that trying to shut it down would only incite general mutiny, Hank Luton grudgingly called the day off, halting construction work for the next twenty-four hours before heading down to the rim himself. He later told the henchos at Skycorp and NASA that a spread of stomach virus had caused the stop-work. No big deal, in the long run; the party only delayed the low-power tests by a day.

Sometime during the celebration, Bob and Eddie and Dog-Girl slipped back to the Docks, hauling behind them two garbage bags filled with empty beer cans. Dog-Girl had already sneaked into the vacant medical bay and swiped one of Doc Felapoulos' sedative guns. The three of them opened the suit locker and Dog-Girl tranqed Lenny with a shot to the neck, and once Lenny was in a stupor they untied him and stuffed him into a hardhat, making certain that he had two full air tanks in his life-support pack.

"Then we threw him in the OTV, emptied the bags in there so that there were dozens of empty cans floating around with him, and closed the hatch," Bob said. "Dog-Girl and the Goon reset the nav computer so it would rendezvous with Columbus station in LEO, and then we fired the sunnynatch back to Earth. Never saw him again."

"That was all?" I asked.

Bob, smiling and slumped over the bar, looked at me and shook his head slowly. "Well...not quite. See, I taped a note on the back of Lenny's suit, where he couldn't see it or

take it off. It said, "To the Bill Casey Society...take your drunk stool pigeon and shove him!" I didn't sign it, but I think Lenny let 'em know who the author was, and I don't think they appreciated my sense of humor."

Neither did Skycorp, which was how Cowboy Bob lost his contract bonus and got nailed with a couple of fines which depleted his payroll. He ended up on the "unfavorable" list with the major space companies as a result of the Free Beer Conspiracy. When the hammer inevitably came down, he alone took the pounding.

"But y'know what, Ali?" he said as I half-carried him towards the door. "I don't give a shit. Y'gotta have a sense of humor, god damn fanatics. Following me, telling me I gotta keep my mouth shut. I pissed on 'em from a considerable height, and I'd do it again if I could..."

Bob threw up in the bushes behind the bar, then passed out in the shotgun seat of my car after mumbling directions to his house. I concentrated on keeping my vision straight as I carefully drove down Route 3 towards Cocoa Beach. It was a quarter past midnight when I drove over the Banana River causeway onto Route A1A, cruising through the beachfront commercial strip of Cocoa Beach. The night was black as space, wet and humid like the inside of a dog's mouth, neon-glittering like the old visions of the high frontier.

A couple of units, a pump and a ladder, from the Cocoa Beach Fire department screamed past us in the left lane as I passed the old Seawall Motel. Bob, snoring in the depths of his drunken sleep, paid no attention, nor did I until we passed the commercial zone and headed into the residential part of town. Then the stranger, the guy who had lingered in Jack's near Bob and I while he was telling me the story, oddly came to mind, for no particular reason. Remembering him, I

also recalled something Bob had told me about Lenny Gibson, how he used to bang around in the Skycan rec room, attempting to eavesdrop on conversations. I began to feel uneasy. For no particular reason.

As I turned the corner onto the residential street where Bob told me he lived, I spotted the fire trucks again, parked in the street in front of a small white Florida-style stucco house, practically identical to all the other white stucco houses lining the road. The house was ablaze with fire shooting through a collapsing roof and the firemen directing streams of water through the broken front windows, while people stood around beyond the piles of hoses, watching the blaze. I slowed to a stop behind the trucks and shook Bob awake.

"Hey, Bob," I said. "One of your neighbors has his house on fire."

Bob's eyes cracked open, and he stared through the windshield at the burning house. He didn't say anything for a few moments, just stared.

"It is one of your neighbor's, isn't it?" I asked, feeling an uneasy chill.

Cowboy Bob didn't look at me, nor did he laugh, but his mouth twisted into a sad, angry sort of smile. "What did I tell you?" he whispered at last. "Fanatics. No god damn sense of humor."

True story.

END



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Letters Page

Dear Mr. Lapine:

"Desecration" has a heroine making an end-run around authority. "Digging Out" is patently a condemnation of a company which exploits people to the point of imperiling their lives. "Anthony Veldt II, too" is an attack on modern organizations, wherein the individual, even successful, is "used" by Them. "Nicot Sapiens" has a heroine subjected to deadly peril for a perfidious company that sent her on a trivial errand. "The Barefoot Mule" shows the police as ignorant and unsympathetic fools, soldiers as worse. "Pods" is plainly an aggrandizement of "us", the have-nots, at the expense of "them", the established society.

Sometimes I think I'm a dinosaur, I don't have this modern sort of thinking. I was in the military during the Occupation; when a fine, courteous, cultured people were abused by the barbarians from America. I also saw what the Marshall Plan and programs like that did for them. I came away proud, not ashamed, of my country.

I saw my company behave stupidly or insensitively at times, but when disaster struck, people could call for help because the ubiquitous representatives of Big, Bad AT&T were hanging on broken poles in high winds, getting things going again. I saw management people in the factory working long overtime hours without pay to get the supplies out so people in hurricane-stricken areas could at least call for help.

I wouldn't be honest to myself if I adopted the current view that anything of power is a power for bad. 'Nuff said. I'm not criticizing you guys. I'm just trying to explain my own weakness. I don't seem to have the right stuff for Harsh Mistress. But I'm gonna try to cultivate it. I think it's a belluva good magazine.

Respectfully,

Loring Emery
Hamburg, PA

Dear Mr. Lapine,

Please find enclosed my check for \$5.00 for a copy of your magazine containing a short story by my father,

Frank O. Dodge.

He truly cherishes your personal interest and all the time you have taken to talk with him and the advice you have provided - not that he ever takes advice. I can't tell you how much fun he is having writing his stories and how much he appreciates getting them published. Without his writing, I doubt he would have made it through his recent heart attack, or at least, he wouldn't have had any reason to at least follow some of the doctor's instructions! His excitement with all of his "success" has been his wonder drug.

We wish you the best in all of your future endeavors.

Sincerely,

Frank S. Dodge, Esq.
Attorney At Law
Colorado Springs, CO

Dear Sir,

This sketch is for "The Right Armed Boson's Mate" [a story published in our promotional Con-Mag, Spring 1993, by Frank O. Dodge] submitted by my Grandfather. He suffered a heart attack and asked me to mail this off.

Before I go I just wanted to say thanks! His discussions with you, combined with his stories getting printed have made him happy. I'd go so far as to say, even snug. Thanks. I love him and it's nice to see his dreams coming true.

Sheri S. Domingo

Dear Sir,

I wish to extend my gratitude to you for all that you have done for my Grandfather [Frank O. Dodge, "The Barefoot Mule, Spring/Summer 1993]. As one of my Grandfather's brew, I have enjoyed his stories for sometime. I want to thank you for allowing other people this unique pleasure as well. Mr. Dodge speaks highly of you and to all that know him, that is quite an honor!

Once again, thank you for all you have done, are doing, and will do.

Your Truly,
Latic Gonzales

We are glad that Frank's family is

supportive. We could probably make a good living just selling copies to his relatives, he has so many of them. We are also glad to hear that his heart attack was only a minor setback. We like Frank!

Dear Editors:

Hal Clement passed along the first issue of "Harsh Mistress" at our most recent writer's group. I was delighted to see it and even more delighted to learn that you remembered our meeting at Not Just Another Con last October, which I attended as Hal's guest. That was the best SF convention I have been to yet, in fifteen years of convention going.

I like "Harsh Mistress". Your selection of stories is better than most, and more to my taste than most. "Option Four" was delightful, and "Digging Out" was well thought out, even if sparse in detail. "Nicot Sapiens" was a good presentation of a formula plot, with a nice twist at the end. I did not like "Pods", but largely because I am tired of pessimistic writing. The mainstream mags are full of pessimism, which makes the straightforward storytelling you have presented so fresh.

I am also arrogant enough to want to participate. Enclosed are two stories presented recently at Hal's writers' group. He suggested I send them to Analog because they pay so well, but I would rather be involved with a more vital organization such as yours.

The entire writers' group will be at "Readercon" in Worcester, July 9-11. Perhaps we will see you there.

I enclose a check for the next three issues. With any luck, I'll be in one of them.

Sincerely,

Ramona Wheeler
Rockland, MA

I am glad that you have sent your work to us. However, I would never recommend to anyone that they bypass better paying markets in our favour. There is art and there is rent...it is best to service both needs at once.



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